

# ***Martin Terminal***



## **Facility Response Plan & Spill Prevention, Control, and Countermeasures (SPCC) Plan**

January 2011

***Martin  
Terminal***

# **Facility Response Plan**

**&  
Spill Prevention, Control,  
and Countermeasures (SPCC) Plan**



**Martin Terminal**  
**FACILITY RESPONSE PLAN**  
**AND**  
**SPILL PREVENTION, CONTROL, AND**  
**COUNTERMEASURE (SPCC) PLAN**

In Compliance with the Facility Response Plan, Spill Prevention Control and Countermeasure (SPCC) Plan Regulation in 40 CFR 112, U.S. Coast Guard Regulations under 33 CFR 154, and Department of Transportation Regulations under 49 CFR 194

**FACILITY CONTACT PERSON:**

Willie Welch  
PGD Environmental Leader  
(772) 597-7211 (Office)  
(b) (6) (Mobile)

**FACILITY OPERATOR:**

King-Murray Operating Company, LLC  
c/o Florida Power & Light Company  
Martin Terminal  
2400 Port West Boulevard  
West Palm Beach, Florida 33407-1213  
(561) 844-5084

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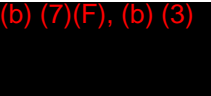
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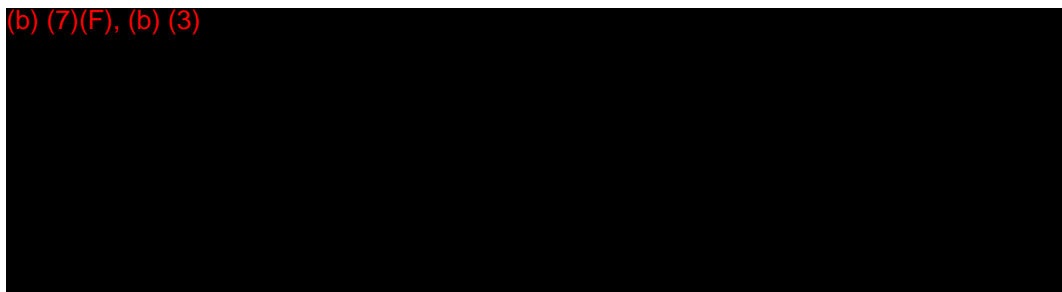
## RESPONSE PLAN COVER SHEET & GENERAL FACILITY INFORMATION FORM

Facility Name: Martin Terminal  
 Street Address: 2400 Port West Boulevard  
 Mailing Address: 2400 Port West Boulevard  
 City: West Palm Beach  
 County: Palm Beach  
 State: Florida  
 Zip Code: 33407-1213  
 Facility Telephone Number: (561) 844-5084  
 Facility Facsimile Number: (561) 845-4623  
 Latitude: (b) (7)(F), (b) (3)  
 Longitude:   
 Wellhead Protection Area: Firehouse Zone #2 Permit WP-90-126  
 Owner: Florida Power and Light Company  
 Power Generation Division  
 P.O. Box 14000 (mailing address)  
 700 Universe Blvd. (street address)  
 Juno Beach, Florida 33408-0420  
 (561) 694-3600 (24-hour availability)  
 Facility Operator: King – Murray Operating Company, LLC.  
 c/o Florida Power & Light Co.  
 Martin Terminal  
 2400 Port West Blvd.  
 West Palm Beach, Florida 33407  
 Facility Telephone Number: (561) 844-5084  
 Facility Facsimile Number: (561) 844-0698  
 Qualified Individual: Willie Welch  
 FPL Martin Plant  
 21900 SW Warfield Blvd  
 Indiantown, FL 34956  
 Telephone Number: (772) 597-7211 (Office)  
 (b) (6) (Home)  
 (b) (6) (Mobile)

Qualified Individual: (Alternate)	Brad Williams FPL Martin Plant 21900 SW Warfield Blvd Indiantown, FL 4956
Telephone Number:	(772) 597-7106 (Office) (321) 600-4891 (Alternate) (b) (6) (Mobile)
Qualified Individual: (Alternate)	Phil Yates FPL Martin Plant 21900 SW Warfield Blvd Indiantown, FL, 34956
Telephone Number:	(772) 597-7228 (Office) (b) (6) (Home) (b) (6) (Mobile)
Date of Oil Storage Start-up:	1979
Current Operation:	Combination of pump stations, pipelines, and storage facilities for supplying fuel to Martin Plant.
North American Industrial Classification System (NAICS) Code:	221112
SIC Code:	4911
Dun and Bradstreet Number:	6922371
Date(s) and Type(s) of Substantial Expansion(s):	No expansions have occurred since the terminal began operation in 1979.
Date of last update:	09/2012
Largest Oil Storage Tank Capacity:	(b) (7)(F), (b) (3)
Maximum Oil Storage Capacity:	
Number of Oil Storage Tanks:	Seven
Worst Case Discharge Amount Facility:	(b) (7)(F), (b) (3)
Pipeline Response Zone:	The pipelines consist of a 30-inch diameter pipeline from the Port of Palm Beach to the Martin Terminal and a 36.5-mile section of 18-inch diameter pipeline connecting the Martin Terminal to FPL's Martin Plant. The pipelines are located in Palm Beach and Martin Counties, Florida. Both pipelines are located within one response zone and could be expected to cause significant and substantial harm.



Worst Case Discharge  
Amount of Pipelines: (b) (7)(F), (b) (3)



Orientation to Facility: The Martin Terminal Unloading Dock is located within Port of Palm Beach; the Martin Terminal is located 3.5 miles inland from Port of Palm Beach.

Facility Distance to Navigable Waters: Mark the appropriate line.

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

\_\_\_\_\_

This plan has been validated to be consistent with the National Contingency Plan, the U.S. Coast Guard, and the Environmental Protection Agency's Area Contingency Plans. The most recent review of this plan for consistency was conducted on 2/26/2014 by Mr. Kevin W. Gordon.

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## 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  
       \_\_\_\_\_

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 within any aboveground oil storage tank area?

Yes        No    ☒  
       \_\_\_\_\_

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

Yes    ☒    No  
       \_\_\_\_\_

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

Yes        No    ☒  
       \_\_\_\_\_

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

Yes        No    ☒  
       \_\_\_\_\_

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

Signature: \_\_\_\_\_

Name (Please type or print): Brad Williams \_\_\_\_\_

Title: Plant General Manager \_\_\_\_\_

Date: \_\_\_\_\_

**P.E. CERTIFICATION**

I hereby certify that I have examined the FPL SPCC Plan, and attest that: I am familiar with the requirements of 40 CFR 112; that I or my agent has visited and examined the facility; that the plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards, and with the requirements of 40 CFR 112; that procedures for required inspections and testing have been established; and that the Plan is adequate for the facility.

---

Printed Name of Registered  
Professional Engineer

---

Signature of Registered  
Professional Engineer

---

Date

---

Registration

---

State

P. E. SEAL

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## MANAGEMENT APPROVAL

This FRP and SPCC Plan have been prepared by FPL as the owner of the Martin Terminal. The contents of this Plan are designed to facilitate compliance with Florida Power and Light (FPL) Environmental Policy and the prevention and contingency planning requirements of the Spill Prevention Control and Countermeasure (SPCC) Plan regulations.

FPL is committed to the prevention of discharges of oil to navigable waters and the environment, and maintains the highest standards for spill prevention control and countermeasures through regular review, updating, and implementation of this Plan.

The overall purposes of this Plan are to:

- Minimize the potential for a release of oil.
- Maximize the readiness of response personnel.
- Maximize the timeliness and effectiveness of spill response operations.
- Minimize the impact of spilled oil on the land, water and natural resources of the region.

This Plan has the full approval of management with authority to commit the necessary response resources to fully implement the Plan and to expeditiously respond to a release of oil. FPL intends to fully support the provisions of this Plan and will activate this Plan according to the guidelines set forth herein. All personnel with responsibilities covered by this Plan will be expected to become familiar and act in accordance with its provisions.

**Company Representative:**

Brad Williams

**Signature:**

**Title:**

Plant General Manager

**Date:**

*[Intentionally Blank]*



## **PLAN UPDATING PROCEDURES**

This FRP and SPCC Plan will be maintained by the Terminal's Oil Spill Coordinator. All Plan holders will be encouraged to submit suggestions for corrections to and/or modifications of this Plan directly to the Oil Spill Coordinator.

All revisions to this Plan will be distributed to Plan holders by cover letter (see attached example). The letter will instruct the recipient on which pages to replace (i.e., the old page to be removed and the revised page to be placed in the Plan). Each holder of this Plan will be instructed to incorporate the changed pages and to review them to ensure that he/she maintains an up-to-date and accurate understanding of the provisions of this Plan.

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## SPILL PREVENTION CONTROL AND COUNTERMEASURE COMPLIANCE INSPECTION PLAN REVIEW PAGE

In accordance with 40 CFR 112.5(b), a review and evaluation of this SPCC Plan is conducted at least once every five years. As a result of this review and evaluation, the Martin Terminal will amend the SPCC Plan within six months of the review to include more effective prevention and control technology if such technology has been field-proven at the time of review and will significantly reduce the likelihood of a discharge from the facility. Any technical amendment to the SPCC Plan shall be certified by a Professional Engineer within six months after a change in the facility design, construction, operation, or maintenance occurs which materially affects the facility's potential for the discharge of oil as defined in 40 CFR 112.1(b).

I have completed a review & evaluation of the SPCC Plan for the Martin Terminal. The Plan will be amended or not as indicated below.

	<b>Review Dates</b>	<b>Signature</b>	<b>Plan will be Amended</b>	<b>Plan will Not be Amended</b>
1.	_____	_____	_____	X _____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____

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**To:****Date:****From:****Location:**

**Subject: FRP & SPCC Plan-  
Transmittal and Receipt Acknowledgement  
Form 2 - Controlled Documents(s)**

The following change(s) (see attached page) is issued to the holder of Controlled Copy No. \_\_\_\_ of the FRP & SPCC Plan for the Martin Terminal:

Please acknowledge receipt of the attachment(s) by returning this entire transmittal memorandum within fifteen (15) days, signed and dated, to \_\_\_\_\_, (\_\_\_\_/\_\_\_\_/\_\_\_\_).

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**Signature**


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**Date**

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**RECORD OF REVISIONS**

<b>DATE OF REVISION</b>	<b>DATE REPLACED</b>	<b>PAGES</b>	<b>DESCRIPTION OF REVISION</b>	<b>INITIALS OF PERSON MAKING REVISION</b>
Change 1: 09/2006		All	Reformatted and revised plans to include recent changes in regulations.	
Change 2: 08/2008		All	Administrative Revision	DJG
Change 3: 1/2011		See attached Plan update sheet	Administrative corrections and 5-yr content review	KWG
Change 4: 09/2012		All	Corrections to Worst Case Discharge Volumes in Preface and Appendix H; Administrative Revisions	RTK
Change 5: 10/2013		See attached Plan Update sheet	Administrative Revisions; PE Amendment 1	KWG
Change 6: 2/2014		See attached Plan Update sheet	Administrative Revisions; PE Amendment 2	KWG
Change 7: 5/2014		See attached Plan Update Sheet	Administrative Revisions	KWG




<b>EPA – FACILITY RESPONSE PLAN</b>		
<b>CROSS REFERENCE INDEX</b>		
<b>Rule Citation 40 CFR 112 APP. F</b>	<b>Description of Rule</b>	<b>Location</b>
1.0	Model Facility Specific Response Plan	
1.1	Emergency Response Action Plan	Section II
1.2	Facility Information	Section III
1.3	Emergency Response Information	Section II
1.3.1	Notification	Section II, IV
1.3.2	Response Equipment List	Section II, App A
1.3.3	Response Equipment Testing/Deployment	Section II, X, XII
1.3.4	Personnel	Section II, IV
1.3.5	Evacuation Plan	Section II, VI, App J
1.3.6	Qualified Individual's Duties	Section II, V
1.4	Hazard Evaluation	Section XI
1.4.1	Hazard Identification	Section XI
1.4.2	Vulnerability Analyses	Section XI
1.4.3	Analysis for the Potential for an Oil Spill	Section XI
1.4.4	Facility Reportable Oil Spill History	Section XI
1.5	Discharge Scenarios	Section VIII
1.5.1	Small and Medium Discharges	Section VIII & VIII
1.5.2	Worst Case Discharge	Section VIII
1.6	Discharge Detection System	Section X
1.6.1	Discharge Detection by Personnel	Section VI.L, X
1.6.2	Automated Discharge Detection	Section X
1.7	Plan Implementation	Sect. IX & X
1.7.1	Response Resources for Small, Medium, and Worst Case Spills	Sect. VI
1.7.2	Disposal Plans	Section IX
1.7.3	Containment and Drainage Planning	Section X, XI.E
1.8	Self-Inspection, Drills/Exercises, and Response Training	Sect. X & XII
1.8.1	Facility Self Inspection	Sect. X, App C
1.8.1.1	Tank Inspection	Section X
1.8.1.2	Response Equipment Inspection	Section X
1.8.1.3	Secondary Containment Inspection	Section X
1.8.2	Facility Drills/Exercises	Section XII
1.8.2.1	Qualified Individual Notification Drill Logs	Section XII

<b>EPA – FACILITY RESPONSE PLAN</b>		
<b>CROSS REFERENCE INDEX</b>		
<b>Rule Citation 40 CFR 112 APP. F</b>	<b>Description of Rule</b>	<b>Location</b>
1.8.2.2	Spill Management Team Tabletop Exercise Logs	Section XII
1.8.3	Response Training	Section XII
1.8.3.1	Personnel Response Training Log	Section XII
1.8.3.2	Discharge Prevention Meeting Log	Section XII
1.9	Diagrams	Section II
1.10	Security	Section X
2.0	Response Plan Cover Sheet	Preface Cover Sheet
3.0	Acronyms	Appendix G
4.0	References	Appendix G

SPCC PLAN COMPONENTS		
CROSS REFERENCE INDEX		
Rule Citation	Description of Rule	Location
§112.7	General requirements for SPCC Plans for all facilities and all oil types.	Section X
§112.7(a)	General requirements; discussion of facility's conformance with rule requirements; deviations from Plan requirements; facility characteristics that must be described in the Plan; spill reporting information in the Plan; emergency procedures.	Section X
§112.7(b)	Fault analysis.	Section X.I
§112.7(c)	Secondary containment.	Section X.E
§112.7(d)	Contingency planning.	Section IX
§112.7(e)	Inspections, tests, and records.	Section X.L, Appendix C
§112.7(f)	Employee training and discharge prevention procedures.	Section XII
§112.7(g)	Security (excluding oil production facilities).	Section X.M
§112.7(h)	Loading/unloading areas (excluding offshore facilities).	Section X.D
§112.7(i)	Brittle fracture evaluation requirements.	Section X.K
§112.7(j)	Conformance with State requirements.	Section X.G
§112.7(k)	Qualified oil filled equipment.	Section X.B
§112.8	Requirements for onshore facilities (excluding production facilities).	Section IX, X, & XII, Appendix C
§112.8(a)	General and specific requirements.	Section IX, X, & XII, Appendix C
§112.8(b)	Facility drainage.	Section X.H
§112.8(c)	Bulk storage containers.	Section X.C
§112.8(d)	Facility transfer operations, pumping, and facility process.	Section X.D

USCG		
CROSS REFERENCE INDEX		
Rule Citation 33 CFR 154 154.1030	Description of Rule	Location
154.1035	Specific Requirements for Facilities that Could Reasonably be Expected to Cause Significant and Substantial Harm to the Environment	
(a)	Introduction and Plan Content	Section I
(a)(1)	Facility Name and Address	Section III
(a)(2)	Facility's Location	Preface
(a)(3)	Procedures for Contacting Owner or Operator on a 24-hour basis	Table II-2 and IV-8
(a)(4)	Table of Contents	Preface
(a)(5)	Cross-Index	Preface
(a)(6)	A record of changes	Section XIII
(b)	Emergency Response Action Plan	Section II
(b)(1)	Notification Procedures	Section IV
(b)(1)(i)	List of Contacts	Table II-2 & II-3
(b)(1)(ii)	Spill Notification Form	Appendix I
(b)(2)	Facility's Spill Mitigation Procedure	Sect. V & VI
(b)(2)(i)	Spill Scenarios	Section VIII
(b)(2)(ii)	Prioritized Procedures	Section II, VI
(b)(2)(iii)	List of Equipment and Responsibilities of Facility Personnel to Mitigate an Average Most Probable Spill	Section II & VIII, App A
(b)(3)	Facility's Response Activities	Sect. V & VI
(b)(3)(i)	Facility Personnel Responsibility to initiate a response	Section II, IV
(b)(3)(ii)	Responsibility of Qualified Individual	Section II, V
(b)(3)(iii)	Organizational Structure Used to Manage Response Action	Section II
(b)(3)(iv)	Identification of Oil Spill Response Organization	Section II, App A
(b)(4)	Fish and Wildlife and Sensitive Environments	Section VII
(b)(4)(i)	Identification of Areas of Environmental Importance	Section VII
(b)(4)(ii)	Describe Potential Impacts to Environmental Areas and Mitigation	Section VII
(b)(4)(iii)	Identify equipment available from OSRO	Appendix A
(b)(5)	Disposal Plan	Section IX
(c)	Training and Exercises	Section XII
(c)(1)	Training Procedures	Section XII

USCG		
CROSS REFERENCE INDEX		
Rule Citation 33 CFR 154 154.1030	Description of Rule	Location
(c)(2)	Exercise Procedures	Section XII.C
(d)	Plan Review and Update	Section XIII
(e)	Appendices	
(e) (1)	Facility Specific Information	Sect. II & III, App A & E
(e) (2)	List of Contacts	Section II
(e) (3)	Equipment Lists and Records	Appendix A
(e) (4)	Communications Plan	Appendix D
(e) (5)	Site-specific Safety and Health Plan	Appendix E
(e) (6)	List of Acronyms and Definitions	Appendix G
(e) (7)	A geographic-specific appendix for each zone in which a mobile facility operates	Not applicable

DOT/PHMSA 49 CFR PART 194		
CROSS REFERENCE INDEX		
RULE CITATION 49 CFR §194	Description of Rule	Location
§194.103	Significant and substantial harm; operator's statement.	Preface
§194.105	Worst case discharge.	
(a)(b)	Worst case discharge calculations.	Section V, App. H
§194.107	General response plan requirements.	
(a)	Describe plan and resources to respond to worst case discharge.	Section II, IV, V, VI
(b)(1)(i)	Function of the Federal response structure.	Sections II, V
(b)(1)(ii)	Provisions to ensure safety.	Sections II, VI, App. E
(b)(1)(iii)	Procedures to obtain any required Federal and State permissions for using alternative response strategies.	Section VI
(b)(2)(i)	Procedures for removal of a worst case discharge; mitigation, prevention of a substantial threat of a worst case discharge.	Sections II, III, V, VI
(b)(2)(ii)	Identify environmentally and economically sensitive areas.	Sections II, VII
(b)(2)(iii)	Responsibilities of operator, Federal, State and local agencies.	Sections II, V
(b)(2)(iv)	Procedure for obtaining an expedited decision on use of dispersants or other chemicals.	Section VI
(c)(1)(i)	An information summary as required in § 194.113.	Preface
(c)(1)(ii)	Immediate notification procedures.	Section II, Section VI
(c)(1)(iii)	Spill detection and mitigation procedures.	Sections VI, X
(c)(1)(iv)	Contact information oil spill response organization.	Preface, Section II
(c)(1)(v)	Response activities and response resources.	Sections II, IV, V, VI, App. A
(c)(1)(vi)	Contact information Federal, State, local agencies.	Section II
(c)(1)(vii)	Training procedures.	Section XII
(c)(1)(viii)	Equipment testing.	Sections II, XII
(c)(1)(ix)	Drill program.	Section XII
(c)(1)(x)	Plan review and update procedures.	Preface, Section XIII
(c)(2)	Individual appendix for each response zone that includes the information required in (c)(1)(i)-(ix) of this section and the worst case discharge calculations that are specific to that response zone.	Appendix H
(c)(3)	Operator's response management system.	Section II, Section V

DOT/PHMSA 49 CFR PART 194		
CROSS REFERENCE INDEX		
RULE CITATION 49 CFR §194	Description of Rule	Location
§194.109	Submissions of state response plans.	
(a)	Equivalent or greater plan complying with state regulation.	N.A.
§194.111	Response plan retention.	
(a)	Maintain relevant portions at the operator's headquarters and at other locations from which response activities may be conducted.	Preface
(b)	Copy of response plan to each qualified individual.	Section XIII
§194.113	Information summary.	Preface
(a)(1)	Name and address of the operator.	Preface
§194.113	Information summary.	Preface
(a)(2)	Listing and description of the response zones.	Preface, Section III
(b)(1)	Information summary for the core plan.	Preface
(b)(2)	Contact information for qualified individual(s).	Preface, Section III
(b)(3)	Description of the response zone in which a worst case discharge could cause substantial harm to the environment.	Preface, Section III
(b)(4)	List of line sections for each pipeline in the response zone.	Section III
(b)(5)	Basis for determination of significant and substantial harm.	Preface, Section III
(b)(6)	Type of oil and volume of the worst case discharge.	Preface, Section V, App. H
§194.115	Response resources.	
(a)	Resources necessary to remove a worst case discharge and to mitigate or prevent a substantial threat of a worst case discharge.	Section II, App. A
(b)	Response resources available to respond within the time specified.	Section II, App. A
§194.117	Training.	
(a)(1)(i)	Responsibilities under the response plan.	Section XII
(a)(1)(ii)	Contact information and procedures for operator.	Section XII
(a)(1)(iii)	Contact information and procedures for the qualified individual.	Section XII
(a)(2)(i)	Content of the information summary of the response plan.	Section XII



DOT/PHMSA 49 CFR PART 194		
CROSS REFERENCE INDEX		
RULE CITATION 49 CFR §194	Description of Rule	Location
(a)(2)(ii)	Toll-free telephone number of the National Response Center.	Section II, Section XII
(a)(2)(iii)	Notification process.	Section XII
(a)(3)(i)	Characteristics and hazards of oil discharged.	Section XII
(a)(3)(ii)	Conditions likely to worsen emergencies and appropriate corrective actions.	Section XII
(a)(3)(iii)	Steps necessary to control any accidental discharge of oil and to minimize the potential for fire, explosion, toxicity, or environmental damage.	Section XII
(a)(3)(iv)	Firefighting procedures.	Section XII
(b)	Training record retention.	Section XII
(c)	Meet OSHA training standards 29 CFR §1910.120.	Section XII
§194.121	Response plan review and update procedures.	
(a)	Update response plan to address new or different operating conditions or information. Review response plan in full at least every 5 years from the date of the last submission or the last approval.	Section XIII
(b)	Immediate modification of response plan and submission within 30 days of new or different operating such as defined in (b)(1-8).	Section XIII

**SECTION I:****INTRODUCTION AND PLAN CONTENT**

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**A. PURPOSE OF PLAN**

Florida Power and Light Company (FPL) has developed a two-volume Oil Spill Response Plan to address oil spill incidents that may occur at the Martin Terminal located in Palm Beach County, Florida. Volume One, the Facility Response Plan (FRP), details the response capabilities of facility personnel, while Volume Two, the Corporate Response Plan, describes the response capabilities of FPL's Corporate Response Team that has been formed to handle incidents which are beyond the capabilities of facility personnel. This FRP also includes the Spill Prevention, Control, and Countermeasures (SPCC) Plan for the Martin Terminal. The combined FRP has been prepared in accordance with the requirements of the US EPA's regulation in 40 CFR 112, the USCG's regulation in 33 CFR 154, the DOT Regulation in 49 CFR 194, and the Oil Pollution Act of 1990 (OPA 90).

The purpose of the FRP is to:

- Provide guidance and information to the personnel that would be called upon to respond to oil spill incidents that may occur at the Martin Terminal.
- Provide a description of the Martin Terminal and associated pipelines, and local environmental conditions that may influence the movement of spilled oil and/or the efficacy of response operations.
- Provide members of the facility's Onsite Response Team with information on FPL's Emergency Response Organization.
- Provide members of the facility's Onsite Response Team with information on their roles and responsibilities.
- Detail internal and external notification procedures that would be followed during emergency response operations.
- Provide members of the facility's Onsite Response Team with information that would be needed to organize and carry out oil spill response operations.
- Provide information on the local resources that would be available to respond to Level I (small), Level II (medium), or Level III (worst case) incidents.

- Enhance employee knowledge and understanding of the safety and health risks associated with an oil spill.
- Describe the training that members of the Onsite Response Team would receive to ensure they are prepared to carry out their responsibilities during an oil spill incident.

The purpose of the SPCC Plan within the FRP is to:

- Describe existing prevention measures designed to contain or prevent released oil from reaching surface waters.
- Provide a physical description of the facility.
- Describe the facility's oil storage provisions, potential to discharge, secondary containment system, and drainage system.
- Describe tank truck unloading/transfer procedures.
- Detail the facility's inspection procedures.
- Discuss FPL's discharge prevention and response training program to ensure members are prepared to carry out their responsibilities during an oil spill incident.
- Describe site security procedures.

The purpose of the Corporate Response Plan is to:

- Describe the Corporate Response Team that was established to respond to Level II and Level III incidents at any FPL facility.
- Describe the Incident Command System (ICS) based emergency response management system that the Corporate Response Team would use to respond to Level II or III incidents.
- Describe the roles and responsibilities of the members of the Corporate Response Team.
- Detail internal and external notification procedures that would be followed during a Level II or Level III incident.
- Describe the training that members of the Corporate Response Team would receive to ensure that they are prepared to respond and carry out their duties during an oil spill incident.

## **B. SCOPE**

This combined FRP and SPCC Plan covers the prevention practices and response measures that have been established to prevent discharges and to respond to any

oil spill incident that may occur at this facility. Site-specific information addressing components of the SPCC portion of this plan is provided primarily in Section X.

### **C. POLICY**

The goal for operations at the Martin Terminal and associated pipelines is **zero** spillage of oil. To achieve this goal, the following oil spill prevention measures are in place:

- Personnel at the terminal are always alert, checking their own actions and those of personnel on vessels docked at the facility.
- The **Oil Spill Coordinator, OSC/QI** or the **Terminal Operators** do not hesitate to stop all transfer operations the moment there is any doubt as to the safety and/or integrity of those operations.
- The **Oil Spill Coordinator, OSC/QI** and **Terminal Operators** ensure continuous compliance with all applicable laws, rules, regulations, and government agency policies and directives, as well as Company policies and directives.
- The **Oil Spill Coordinator, OSC/QI** and **Terminal Operators** do everything in their power to prevent an accidental spill.
- All equipment used in the transfer of oil is fully functional and maintained in good repair.
- All oil spill response equipment is fully functional and maintained in good repair.
- All communication equipment is fully functional and maintained in good repair.
- All conditions that could result in an oil spill are detected promptly and repaired or corrected immediately.

Although FPL's oil spill prevention procedures reduce the risk of an oil spill incident, they do not fully eliminate the risk that such an incident could occur. For this reason, FPL is prepared to respond to an oil spill using its own resources and the resources of local, state, and national private and public response organizations.

Should an oil spill occur from a Company pipeline connecting the dock to the storage tanks, or any other company-owned facility and enter the waters of the State of Florida, FPL would immediately respond to the incident and initiate control and/or response operations. In situations where a spill occurs away from an FPL facility,

FPL would make its equipment and/or manpower available to respond if the responsible party, and/or the U.S. Coast Guard, and/or the Florida Department of Environmental Protection would agree to: (1) hold FPL harmless from responsibility for the spill and/or its cleanup; (2) reimburse FPL for the costs associated with the Company's involvement; and (3) restore or replace all FPL equipment used to its pre-spill condition.

***D. MANAGEMENT COMMITMENT***

The SPCC Plan contained within this FRP is a carefully thought out plan, prepared in accordance with good engineering practices, and has the full approval of management with authority to commit the necessary resources to fully implement the Plan. The SPCC Plan will be implemented as described herein, and it will be reviewed and evaluated in accordance with 40 CFR 112.5 (b). The SPCC Plan will be amended whenever there is a change in facility design, construction, operation, or maintenance which affects the facility's potential to discharge oil to navigable waters. Each amendment will be certified by a registered professional engineer and placed in Appendix B.

The designated facility representative responsible for oil spill discharge prevention is **David B. Williams, PGD Regional Plant General Manager.**

The person designated to follow through on FPL commitments for manpower, equipment, and material in the event of a spill is **Willie Welch, PGD Environmental Leader.**



# **MARTIN TERMINAL FACILITY RESPONSE PLAN EMERGENCY RESPONSE ACTION PLAN**

In Compliance with the Facility Response Plan in 40 CFR 112

## **FACILITY CONTACT PERSON:**

Willie Welch  
PGD Environmental Leader  
(772) 597-7211 (Office)  
(b) (6) (Mobile)

## **FACILITY OPERATOR:**

King-Murray Operating Company, LLC  
c/o Florida Power & Light Company  
Martin Terminal  
2400 Port West Boulevard  
West Palm Beach, Florida 33407-1213  
(561) 844-5084  
(561) 845-4600 (Control Room)

## **SECTION II      MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

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## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

In case of an uncontrolled release of oil onto the ground or surface water, contact the following after initial control measures have been implemented (stop source, deployment of containment, or absorbent materials).

Martin Terminal ..... (561) 845-4600 (24-hr number)  
 (561) 844-5084 (24-hr number)  
 CRT..... (561) 694-3600 (24-hr number)

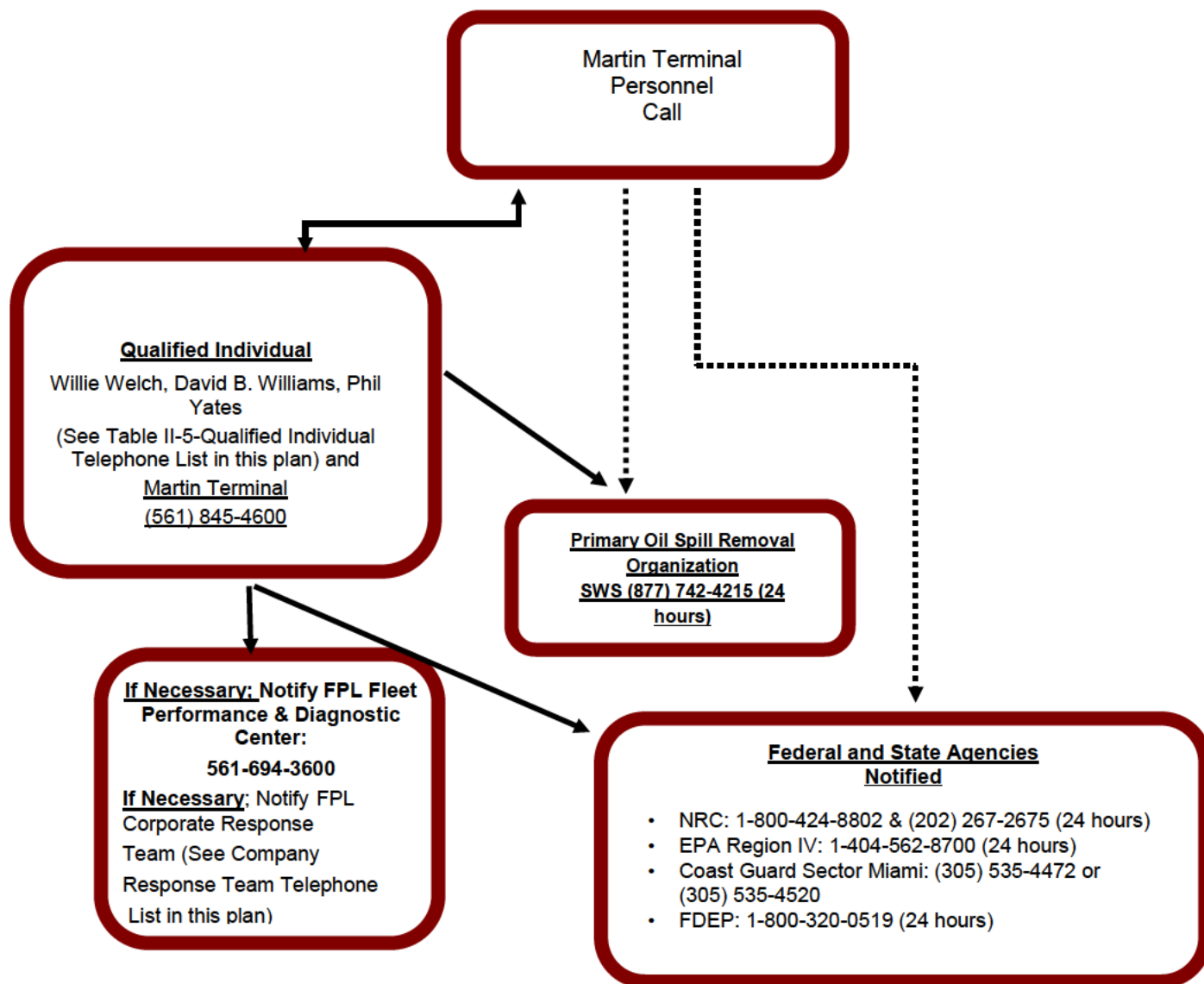


FIGURE II-1 EMERGENCY RESPONSE ACTIONS



## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

TABLE II-1 IMMEDIATE ACTIONS CHECKLIST		
INITIAL RESPONSE ACTIONS ONSITE RESPONSE TEAM	DATE/TIME ACTION TAKEN	PERSON TAKING ACTION
<b>SPILL OBSERVER/FIRST RESPONDER</b>		
1. <b>Make an Immediate Assessment of the Incident</b> & take actions to protect life, and ensure safety of personnel. Determine: <ul style="list-style-type: none"> <li>Type &amp; quantity of material spilled: _____</li> <li>Location &amp; status of material spilled: (contained/uncontained)</li> <li>Status of source: (controlled/uncontrolled)</li> <li>Status of all personnel/injuries: _____</li> </ul>		
2. <b>Stop the Discharge &amp; Shutoff Ignition Sources</b> , if safe to do so. (e.g., act quickly to secure pumps, valves, motors, open flames, etc.). If the incident is clearly the result of an operation that the Spill Observer/First Responder can control safely, take immediate steps to correct the operation.		
3. <b>Warn Personnel</b> – Alert the control room & all facility personnel at or near the incident scene and the On-Scene Commander (OSC)/QI.		
<b>ON-SCENE COMMANDER (OSC) / QUALIFIED INDIVIDUAL (QI)</b>		
4. <b>Isolate &amp; Secure the Incident Scene</b> - Account for all personnel & evacuate nonessential personnel from the area.		
5. <b>Direct Termination of Appropriate Facility Operations</b> for the safety of personnel if necessary.		
6. <b>Complete all Notifications in Table II-6</b> , as appropriate, and call for medical assistance if an injury has occurred.		
7. <b>Complete DETAILED INCIDENT ASSESSMENT FORM (Table II-1)</b> on the following pages to understand the nature & scope of the incident. Assign safety officer to identify chemical hazards of product (MSDS) and physical hazards of incident. Monitor site conditions for changes.		
8. <b>Determine if Incident is Safe to Respond to</b> based on chemical/physical hazards of product/incident or whether evacuation or sheltering-in-place procedures should be instituted. Coordinate evacuation procedures with port security (if located within a Port) and/or the local Police Department as necessary.		
9. <b>Activate all Necessary Response Organizations</b> (i.e., Onsite Response Team; SWS Environmental (OSRO); FPL Corporate Response Team; Fire Department as necessary); <b>(Tables II-6 &amp; II-7)</b>		
10. <b>Establish Hazard Control Zones</b> (i.e., hot, warm & cold zones) as appropriate & control access to release area. Note: warm & cold zones should be located upwind (Safety Officer responsibility).		
11. <b>Define Personal Protective Equipment (PPE)</b> when responding to the incident (Safety Officer responsibility).		
12. <b>Direct Onsite Response Team</b> (if safe to do so) to put on proper PPE, contain the discharge, and protect environmentally sensitive areas. This may include berming ahead of spill or deployment of containment and/or absorbent boom. <b>(use Figures II-6 through II-18 within Section II to aid in establishing a detailed plan)</b>		
13. <b>Initiate Spill Tracking &amp; Surveillance Operations</b> for surface water spills as necessary. Determine location and extent of spill using boats, vehicles, or surveillance aircraft (conducted by CRT). Estimate volume of spill (See spill volume estimation discussion below).		
14. <b>Establish Incident Command Post</b> (see Table II-2)		

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

After the above initial response actions have been completed, establish or verify that the following secondary response actions have been taken to assist the response organization in gaining control of the incident.

<b>TABLE II-2 SECONDARY ACTIONS CHECKLIST</b>	
<b>SECONDARY RESPONSE ACTIONS ONSITE/CORPORATE RESPONSE TEAM(S)</b>	<b>COMPLETE (YES/NO)</b>
<b>ESTABLISH SITE CONTROL</b>	
Designate On-Scene Commander	
Establish Incident Command Post	
Isolate and Secure the Incident Scene	
Initiate Personnel Protective Actions (e.g., evacuations, shelter-in-place)	
Establish Personnel Accountability System	
Establish an Isolation Zone Marked by a Clearly Defined Isolation Perimeter that is a Safe Distance Around the Incident Scene	
Establish staging area(s)	
Institute a Resource Check-in Procedure to Track Resource Arrivals	
<b>ESTABLISH SITE SAFETY</b>	
Designate Site Safety Officer	
Characterized Chemical, Physical, and Operational Hazards	
Established Hazard Control Zones (Hot, Warm & Cold Zones)	
Identify PPE Requirements	
Set up Decontamination Stations	
Set up First Aid Stations	
Ensure that Emergency Medical Procedures & Response Capabilities are in Place to Handle Injuries	
Conduct Pre-entry Briefing for all Tactical Responders	
Continuously Monitor Site for Changes in Hazards	
Develop Site Specific Safety & Health Plan	
<b>ESTABLISH SITE MANAGEMENT</b>	
Complete DETAILED INCIDENT ASSESSMENT FORM (Table II-3) to Determine Incident Potential/Severity	
Develop Strategic Objectives (What the Response Organization is trying to Achieve)	
Develop Tactical Objectives (How will Response Organization Achieve the Strategic Objectives)	
Break Down Tactical Objectives into Manageable Tasks	
Assign Resources to Tasks	
Monitor Operations	
<b>ESTABLISH COMMUNICATIONS</b>	
Establish Communication Networks as Necessary <ul style="list-style-type: none"> <li>Tactical Net – Links OSC with Tactical Responders in the field</li> <li>Support Net – Links Staging Area Manager(s) with Supply unit in the Logistics Section in the Incident Command Post (ICP)</li> <li>Command Net – Links OSC with Operations Section Chief/Incident Commander in the ICP</li> </ul>	
Define Communication Protocols (i.e., when reports should be received in ICP)	
Prepare Initial Incident Briefing Form (ICS 201)	

**SECTION II      MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

TABLE II-3 DETAILED INCIDENT ASSESSMENT FORM	
<b>GENERAL INFORMATION</b>	
Date of Incident: _____ Time of Incident: _____ The type of product spilled: _____ The estimated amount of product spilled: _____ Source of spill: _____ Status of source: Controlled: ____ Continuing: _____ Unknown: _____ Cause of the spill: _____ Is the spill contained? _____ Shoreline impacts: _____ Status of Response operation: _____ An initial assessment of whether the spilled oil can be contained and cleaned up with onsite equipment, or whether Level II or III equipment is required: _____	
<b>SAFETY &amp; HEALTH CONCERNS</b>	
The status of all personnel (injuries, etc.): _____	
Identification of possible health or fire hazards: _____	
<b>ENVIRONMENTAL IMPACTS</b>	
Environmentally sensitive areas impacted: _____ Wildlife impacted: _____	
<b>ON-SCENE WEATHER &amp; SURFACE WATER CONDITIONS</b>	
On-scene weather conditions to include: _____ Current speed and direction: _____ Wind speed and direction: _____ Wave height and direction: _____	

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

### Spill Volume Estimating

Early in a spill response, estimation of spill volume is required in order to:

- Report to agencies.
- Determine liquid recovery requirements.
- Determine personnel and equipment requirements.
- Estimate disposal and interim storage requirements.

Some rapid methods to estimate spill size are:

- Transfer operations: Multiply the pumping rate by the elapsed time that the leak was in progress, plus the drainage volume of the line between the two closest valves or isolation points (volume loss = pump rate [bbls/min] x elapsed time [min] + line contents [bbl]).
- Tank overfills: Elapsed time multiplied by the pumping rate.
- Tank volumes are contained in **Table II-10** to estimate spill volumes.
  - Visual assessment of the surface area and thickness; the method may yield unreliable results because:
  - Interpretation of sheen color varies with different observers.
  - Appearance of a slick varies depending upon amount of available sunlight, sea-state, and viewing angle.
  - Different products may behave differently, depending upon their properties.
- For spills on surface water, use the **Oil Thickness Estimations** Table II-9 to determine approximate spill volume.

### Estimating Spill Trajectories

In some cases, oil spill trajectories should be estimated in order to predict direction and speed of the movement. Trajectory calculations provide an estimate of where oil slicks may impact shorelines and other sensitive areas, and also provide an estimate of the most effective location in which to mobilize spill response resources for protection, containment and recovery.

Oil spill trajectories can be estimated using vector addition or with computer programs. Hand calculations typically utilize the following assumptions:

- Oil moves at approximately the same direction and speed as the water currents, unless the winds are strong.
- Wind speed can be multiplied by 0.034 to determine the effect of winds on speed and direction of spill movement.
- The combined effects of winds and currents can be added to estimate spill movement speed and direction.

More sophisticated predictions can be obtained from computer programs. Oil spill trajectory services can be obtained from FPL's Corporate Response Team or:

- Applied Science & Associates (401) 789-6224
- National Oceanic and Atmospheric Administration (NOAA) through the Federal On-Scene Commander (FOSC)

**SECTION II      MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

<b>TABLE II-4</b>		
<b>OIL THICKNESS ESTIMATIONS</b>		
<b>OIL COLOR</b>	<b>APPROX. FILM THICKNESS</b>	<b>APPROX. QUANTITY OF OIL</b>
	<b>INCHES</b>	<b>IN FILM</b>
	<b>GALLONS/MILE</b>	
Barely Visible	0.0000015	25
Silvery	0.000003	50
Slightly colored	0.000006	100
Brightly colored	0.000012	200
Dull	0.00004	666
Dark	0.00008	1,332
Thickness of light oils: 0.0010 inches to 0.00010 inches		
Thickness of heavy oils: 0.10 inches to 0.010 inches		

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

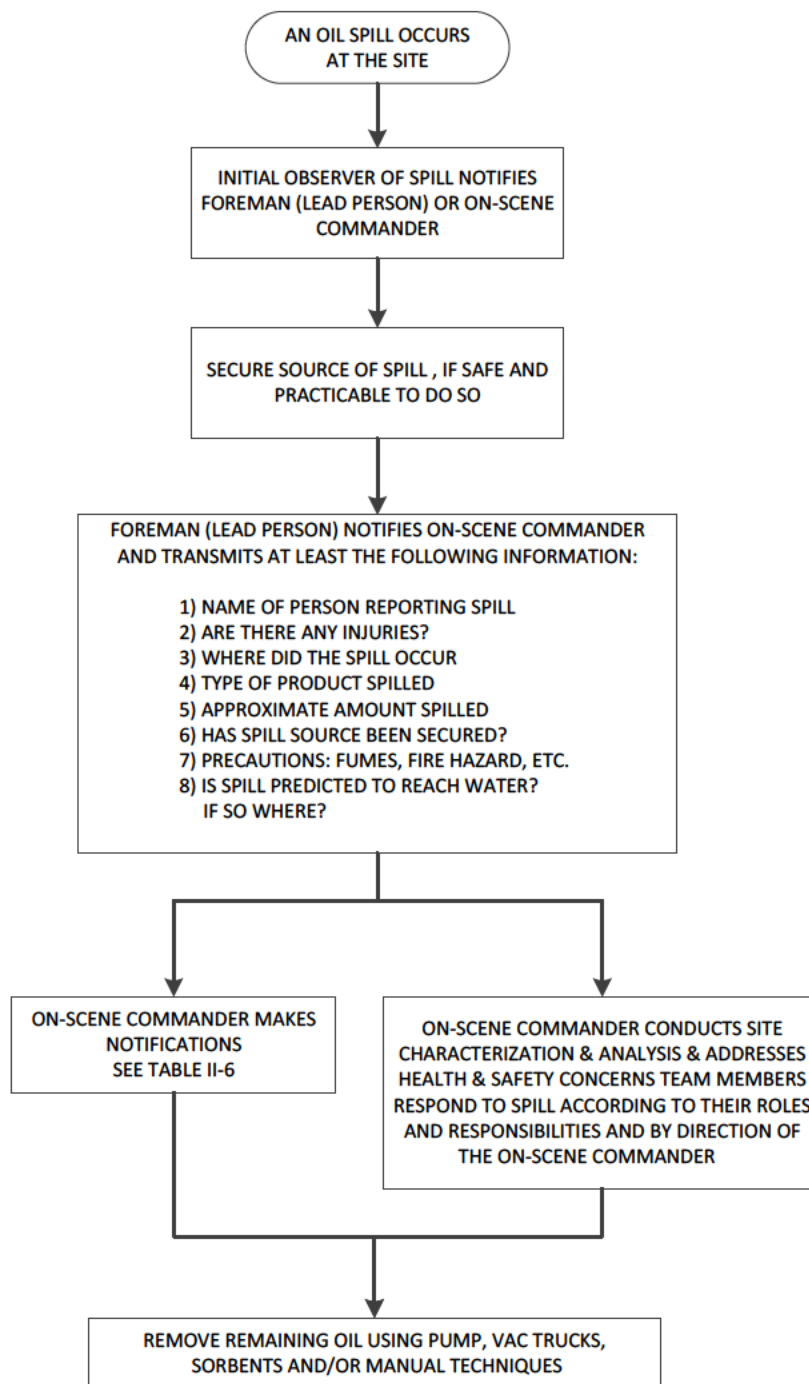
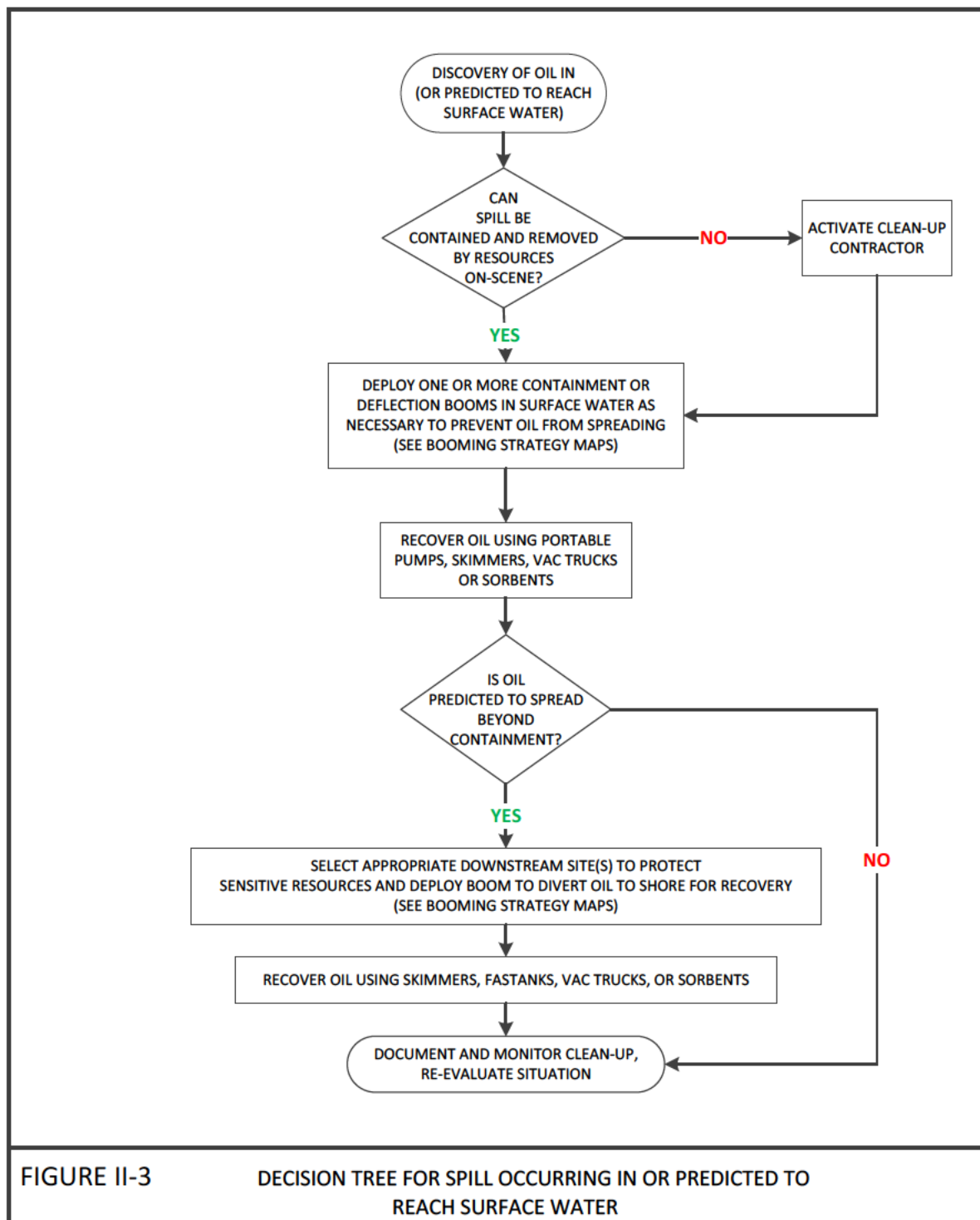
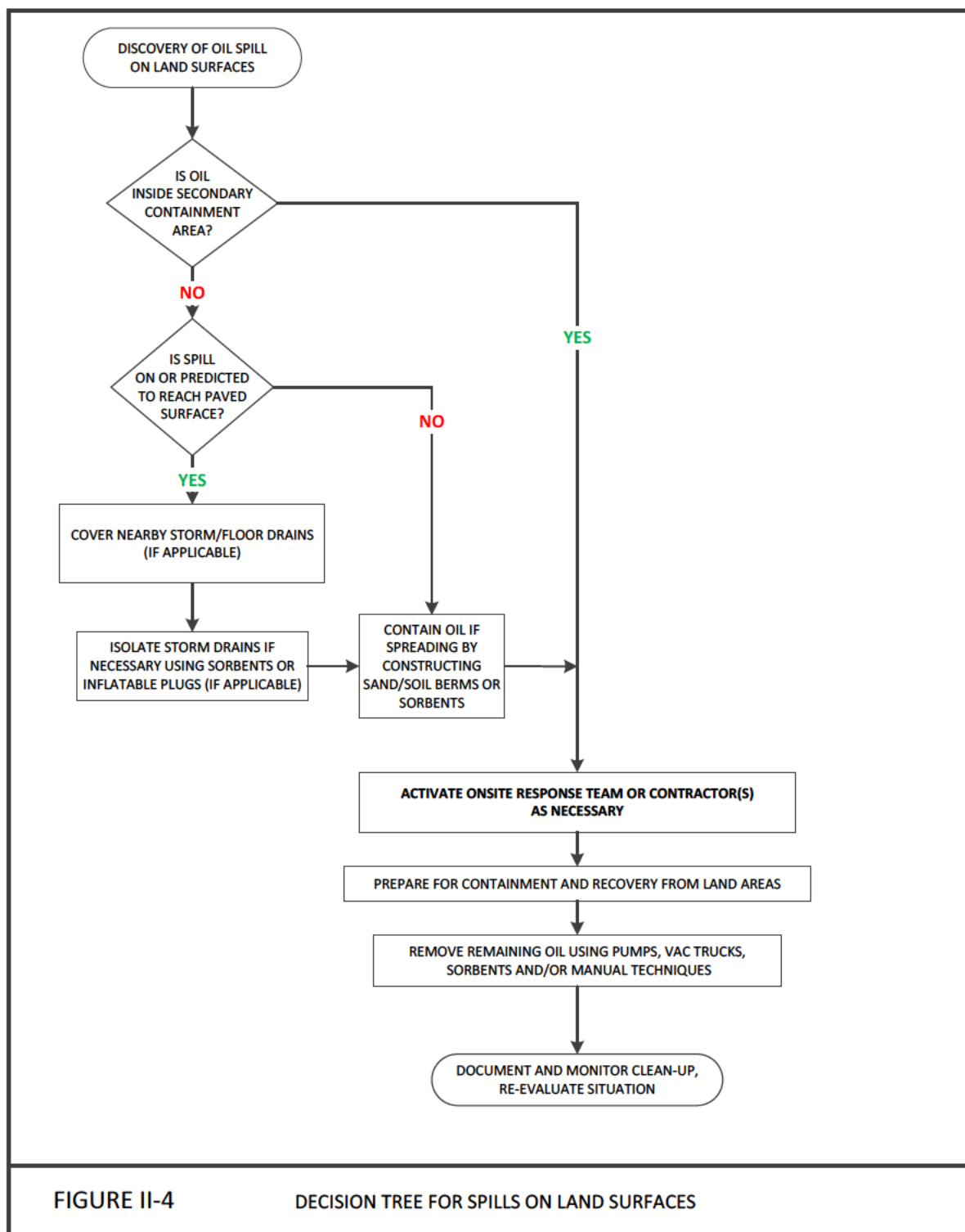


FIGURE II-2

FLOW CHART OF INITIAL DISCOVERY, NOTIFICATION  
AND EVALUATION OF SPILL

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN



**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**



**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

<b>TABLE II-5</b>			
<b>QUALIFIED INDIVIDUAL (QI) INFORMATION</b>			
<b>PRIMARY</b>		<b>ALTERNATE</b>	
Name	Willie Welch	David B. Williams	Phil Yates
Position	PGD Environmental Leader	PGD Regional Plant General Manager	Production Manager I
Work Address	FPL Martin Plant 21900 SW Warfield Blvd Indiantown, FL 34956	FPL Martin Plant 21900 SW Warfield Blvd Indiantown, FL 34956	FPL Martin Plant 21900 SW Warfield Blvd Indiantown, FL, 34956
Home Address	(b) (6)		
Work Phone #	(772) 597-7211	(772) 597-7106	(772) 597-7228
Home Phone #	(b) (6)		
Mobile Phone #			
Response Time to Martin Terminal	45 minutes	45 minutes	45 minutes
Training – Experience	HAZWOPER 40 Hour ICS 100/200	HAZWOPER 8 Hour ICS 100/200	HAZWOPER 40 Hour ICS 100/200

QI duties include the following:

- (A) Activate internal alarms and hazard communication systems to notify all facility personnel;
- (B) Notify all response personnel, as needed;
- (C) Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification;
- (D) Notify and provide necessary information to the appropriate Federal, State, and local authorities with designated response roles, including the National Response Center (NRC), State Emergency Response Commission (SERC), and Local Emergency Planning Committee (LEPC);
- (E) Assess the interaction of the discharged substance with water and/or other substances stored at the facility and notify response personnel at the scene of that assessment;
- (F) Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion);
- (G) Assess and implement prompt removal actions to contain and remove the substance released;
- (H) Coordinate rescue and response actions as previously arranged with all response personnel;
- (I) Use authority to immediately access company funding to initiate cleanup activities;
- (J) Direct cleanup activities until properly relieved of this responsibility.

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

Immediate notification is required to the National Response Center for any spill that threatens to enter or enters navigable waters. Do not wait to obtain all information before notifying the NRC.

TABLE II-6	
EMERGENCY NOTIFICATION LIST	
CONTACT	TELEPHONE NUMBER
Federal, State and Local Agencies	
Spills which threaten or enter navigable/state waters require notification to:	
National Response Center (NRC)	(202) 267-2675 (24 hours) (800) 424-8802 (24 hours)
EPA Region IV Spill Hotline	(404) 562-8700
United States Coast Guard Sector Miami	(786) 295-9049 (24 hours) (305) 535-8701 (Office)
Florida State Department of Environmental Protection (FDEP) – Bureau of Emergency Response (State Warning Point)	(800) 320-0519 (24 hours) (850) 413-9911
Palm Beach Department of Environmental Resource Management	(561) 233-2400
ADDITIONAL AGENCY CONTACTS AS NECESSARY	
Local Emergency Planning Committee (LEPC) 11th District	(954) 985-4416
U.S. Army Corps of Engineers (Franklin Locks) Marilyn Ham	(239) 983-8101 (office) (b) (6) (home)
U.S. Department of Interior: U.S. Fish and Wildlife Service Region 4 – Atlanta, Georgia	(404) 763-7959 (24 hours)
U.S. Department of Commerce: National Oceanic and Atmospheric Admin. Scientific Support Coordinator Seattle, WA	(206) 526-6311 (24 hours)
U.S. Geological Survey District Office Southeastern Region Tallahassee, FL	(888) 275-8747 (24 hours)
Qualified Individuals (day and evening)	See Qualified Individual Table II-5 (above)
Company Response Team (day and evening)	See Table II-7 (below)
Federal On-Scene Coordinator and/or National Response Center (day and evening)	Federal On-Scene Coordinator US Coast Guard Telephone 1-800-424-8802 (National Response Center)

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

<b>TABLE II-6</b>	
<b>EMERGENCY NOTIFICATION LIST</b>	
<b>CONTACT</b>	<b>TELEPHONE NUMBER</b>
Local response team phone numbers (Fire Department/Cooperatives)	911 (24 hours); phone numbers listed below
Martin County Emergency Management	(772) 287-1652
Palm Beach County Emergency Management	(561) 233-3500
Martin County Environmental Services	(772) 288-5700
Martin County Sheriff's Department	(772) 220-7000
Palm Beach County Sheriff's Department	(561) 688-3000
Martin County Fire Department	911 (24 hours)
Police phone number	911 (24 hours)
Rescue Unit	911 (24 hours)
Locks managed by COE, Clewiston:	(863) 983-8101
Port Mayaca Lock	(561) 924-2858
St. Lucie Lock	(772) 287-2665
U.S. Army Corps of Engineers (Franklin Locks)	
Kenny Andrews	(239) 694-5451 (office)
Ed Motley	(863) 983-8101 (office)
Wastewater treatment facility(s) name and phone number	None
Local water supply system (day and evening) phone numbers	None
Weather report phone number	<b>(Palm Beach International Airport)</b> (561) 832-3801

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

<b>TABLE II-6</b>		
<b>EMERGENCY NOTIFICATION LIST</b>		
<b>CONTACT</b>	<b>TELEPHONE NUMBER</b>	
Local radio phone number(s) for evacuation notification	<b>AREA RADIO STATIONS</b>	
	<b>WAYF</b>	West Palm Beach 561-881-1929
	<b>WRMB</b>	Boynton Beach 561-737-9762
	<b>WCNO</b>	Palm City 772-221-1100
	<b>WXEL</b>	West Palm Beach 561-737-8000
	<b>WRLX</b>	West Palm Beach 561-616-6750
	<b>WZZR</b>	Riviera Beach 561-335-9300
	<b>WLDI</b>	Fort Pierce 561-616-6750
	<b>WRMF</b>	Palm Beach 561-868-1100
	<b>WKGR</b>	Fort Pierce 561-616-6750
	<b>WMBX</b>	Jensen Beach 561-616-4600
	<b>WPBZ</b>	Indiantown 561-616-4600
	<b>WEAT</b>	West Palm Beach 561-686-9505
	<b>WNEW</b>	Jupiter 212-489-1027
	<b>WIRK</b>	West Palm Beach 561-686-9505
Local TV Stations phone number(s) for evacuation notification	<b>LOCAL TV STATIONS AND BROADCASTING COMPANIES</b>	
	<b>WPBT TV 2</b> (Riviera Beach) (800) 222-9728	<b>WPEC TV 12</b> (Riviera Beach) (561) 844-1212
	<b>WFLX TV 29</b> (Riviera Beach) (561) 845-2929	<b>WPTV TV 5</b> (West Palm Beach) (561) 655-5455
	<b>WPBF TV 25</b> (Palm Beach Gardens) (561) 694-2525	<b>WTVX TV 34</b> (West Palm Beach) (561) 686-3434
		<b>WXEL TV 42</b> (Boynton Beach) (561) 737-8000
Primary Oil Spill Removal Organization (OSRO)	<b>SWS Environmental Services</b> (877) 742-4215 (24 hours)	

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

<b>TABLE II-6 EMERGENCY NOTIFICATION LIST</b>	
<b>CONTACT</b>	<b>TELEPHONE NUMBER</b>
Secondary Oil Spill Removal Organization (OSRO)	<b>FPL FPDC (Fleet Performance and Diagnostic Center) To Activate FPL's Corporate Response Team</b> (866) 375-3732 (toll free) (561) 694-3600 (office)  <b>Diversified Environmental</b> (800) 786-3256 (toll free) (813) 248-3256 (office) (b) (6) home) mobile)  <b>Moran Environmental</b> (781) 815-1100 (888) 233-5338 (24 hours)
Factories/Utilities with water intakes	(b) (7)(F), (b) (3)
Wildlife Contacts	<b>Tri-State Bird Rescue and Research, Inc.</b> (904) 251-2473 (office)  <b>National Wildlife Refuge</b> (239) 472-1100  <b>Local Aquatic Preserves and/or State Parks</b> (850) 245-2094  <b>Bird Emergency Aid and Kare Sanctuary (B.E.A.K.S.)</b> (904) 251-2473
Trustees of Sensitive Areas	<b>John D. MacAuthur Beach State Park</b> Don Bergeron or Pat Rash (561) 262-0232
Security Services	<b>Allied Barton</b> West Palm Beach , Florida (561) 697-8170 (561) 697-8186 (Steve Metts ext: 201)

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

<b>TABLE II-6 EMERGENCY NOTIFICATION LIST</b>	
<b>CONTACT</b>	<b>TELEPHONE NUMBER</b>
Surveillance Operations	<b>FPL Aviation</b> Palm Beach International Airport (561) 640-2200  <b>Universal Air Service</b> <b>Orlando, FL</b> (407) 896-2966 (24 hours)  <b>Aircoastal Helicopters</b> 2615 Lantana Road Lantana, FL 33462 Dan Crow/Terry Jones (561) 642-6840 (office)  <b>O'Brien's Response Management</b> <b>Aerial Surveillance Specialists</b> (985) 781-0804 (24 hours)
Local Marinas	<b>Sailfish Marina</b> (561) 844-1724 <b>The Buccaneer</b> (561) 842-1620 <b>Cannonsport Marina</b> (561) 848-7469 <b>Lake Park Marina</b> (561) 842-2724 <b>North Palm Beach Marina</b> (561) 626-4919 <b>Old Port Cove Marina</b> (561) 626-1760 <b>Riviera Beach Municipal Marina</b> (561) 842-7806 <b>Rybovich Spencer Group</b> (561) 844-1800
Note: See Figure II-8 for location of communication equipment.	

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

SPILL RESPONSE NOTIFICATION FORM			
REPORTING PARTY INFORMATION			
INITIAL NOTIFICATION TO NRC MUST NOT BE DELAYED PENDING COLLECTION OF ALL INFORMATION			
REPORTER'S LAST NAME: _____ FIRST: _____ M.I.: _____			
PHONE NUMBERS: DAY: _____ EVENING: _____ MOBILE : _____			
COMPANY: <u>Florida Power and Light Company</u>			
ORGANIZATION TYPE: <u>Electric Company</u>			
YOUR POSITION: _____			
ADDRESS: <u>2400 PORT WEST BOULEVARD</u>			
CITY: <u>WEST PALM BEACH</u> STATE: <u>FL</u> ZIP: <u>33407-1213</u>			
WERE MATERIALS DISCHARGED? (Y/N): _____ CONFIDENTIAL (Y/N) _____			
MEETING FEDERAL OBLIGATIONS TO REPORT? (Y/N): _____ DATE CALLED: _____			
CALLING FOR RESPONSIBLE PARTY? (Y/N): _____ TIME CALLED: _____			
INCIDENT DESCRIPTION			
SOURCE AND/OR CAUSE OF INCIDENT: _____			
DATE: _____ TIME OF INCIDENT: _____ AM/PM			
INCIDENT ADDRESS/LOCATION: _____			
NEAREST CITY: <u>WEST PALM BEACH</u> STATE: <u>FL</u> COUNTY: <u>PALM BEACH</u> ZIP: <u>33407</u>			
DISTANCE FROM CITY: _____ UNITS: <u>MILES</u> DIRECTION FROM CITY: _____			
SECTION: _____ TOWNSHIP: _____ RANGE : _____			
CONTAINER TYPE: _____ TANK CAPACITY: _____ UNITS: _____			
FACILITY CAPACITY: <u>(b) (7)(F),</u> UNITS: <u>GALLONS</u>			
FACILITY LATITUDE: <u>(b) (7)(F), (b) (3)</u>			
FACILITY LONGITUDE: _____			

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

SPILL RESPONSE NOTIFICATION FORM					
MATERIAL RELEASED (CHRIS Code)	RELEASED QUANTITY	UNIT OF MEASURE	MATERIAL RELEASED IN WATER	QUANTITY	UNIT OF MEASURE
RESPONSE ACTION					
ACTIONS TAKEN TO CORRECT, CONTROL OR MITIGATE INCIDENT _____					
IMPACT					
NUMBER OF INJURIES: _____			NUMBER OF FATALITIES: _____		
WERE THERE EVACUATIONS? (Y/N): _____			NUMBER OF EVACUATIONS: _____		
WAS THERE ANY DAMAGE? (Y/N): _____			DAMAGE IN DOLLARS (APPROX.): _____		
MEDIUM AFFECTED: _____					
DESCRIPTION: _____					
MORE INFORMATION ABOUT MEDIUM: _____					
ANY INFORMATION ABOUT THE INCIDENT NOT RECORDED ELSEWHERE IN THE REPORT: _____					



**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

SPILL RESPONSE NOTIFICATION FORM			
ATMOSPHERIC AND WATER CONDITIONS			
ATMOSPHERIC		WATER	
WIND SPEED: _____ MPH		STATE OF TIDE: _____	
WIND DIRECTION FROM: _____		CURRENT SPEED: _____ KNOTS	
AIR TEMPERATURE: _____ °F		CURRENT DIRECTION FROM: _____	
VISIBILITY: _____ MILES		WAVE HEIGHT: _____ FEET	
RAINFALL: _____ INCHES		WATER TEMPERATURE: _____ °F	
CALLER NOTIFICATION			
	YES/NO	WHO	TIME/DATE
NATIONAL RESPONSE CENTER (NRC) 1 800 424-8802	_____	_____	_____
US COAST GUARD SECTOR MIAMI	_____	_____	_____
FDEP	_____	_____	_____
STATE WARNING POINT	_____	_____	_____
PRIMARY OSRO (SWS ENVIRONMENTAL)	_____	_____	_____
CRT (CORPORATE RESPONSE TEAM)	_____	_____	_____
FPDC (FLEET PERFORMANCE & DIAGNOSTICS CENTER)	_____	_____	_____
MARTIN COUNTY	_____	_____	_____
AREA EXTERNAL AFFAIRS REPRESENTATIVE	_____	_____	_____
MARKETING & COMMUNICATIONS	_____	_____	_____
OTHERS	_____	_____	_____
<b>On-Scene Commander</b>		<b>Date</b>	

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

TABLE II-7				
COMPANY RESPONSE TEAM TELEPHONE LIST				
MARTIN ONSITE RESPONSE TEAM (ORT); FPL CORPORATE RESPONSE TEAM (CRT)				
MARTIN ORT RESPONSE TIME IS LESS THAN 5 MINUTES IF ONSITE				
FPL CRT NOTIFIED WITHIN 2 HOURS, RESPONSE TIME IS 4 HOURS				
POSITION	CONTACT	TELEPHONE NUMBER	TRAINING	RESPONSE TIME FROM OFFSITE
On-Scene Commander/ Qualified Individual  (ORT)	Willie Welch	(772) 597-7211 (office) (b) (6) (home) (b) (6) (mobile)	HAZWOPER 40 HRS ICS 100/200	45 mins
Alternate OSC/QI  (ORT)	Phil Yates	(772) 597-7228 (office) (b) (6) (mobile)	HAZWOPER 40 HRS  ICS 100/200	45 mins
Alternate OSC/QI  (ORT)	David B. Williams	(772) 597-7106 (office) (b) (6) (mobile)	HAZWOPER 8 HRS  ICS 100/200	45 mins
PRIMARY OIL SPILL REMOVAL ORGANIZATION				
SWS Environmental Services		1-877-742-4215 (24 HRS)		60 mins
ALL SWS PERSONNEL HAVE 40 HR HAZWOPER TRAINING. IN ADDITION, SWS SUPERVISORS HAVE ICS/NIMS TRAINING. Copies of SWS training records can be obtained at any time from Val Garner, Vice President- SWS Environmental, Health & Safety. He can be reached by phone at (850) 258-9116, or by email at : val.garner@swsenvironmental.com				
TEAM MEMBERS				
Oil Spill Coordinator  (ORT)	Mike Kordsmeier	(561) 845-3398 (office) (b) (6) (home) (b) (6) (mobile)	HAZWOPER 40 HRS ICS 100/200	30 mins
Team Member  (ORT)	Ron Holmes	(561) 844-5084 (office) (b) (6) (home) (b) (6) (mobile)	HAZWOPER 24 HRS	60 mins
Team Member  (ORT)	Wendell Hankins	(561) 844-5084 (office) (b) (6) (home) (b) (6) (mobile)	HAZWOPER 40 HRS	30 mins
Team Member  (ORT)	Jim Forrler	(561) 844-5084 (office) (b) (6) (mobile)	HAZWOPER 24 HRS	60 mins

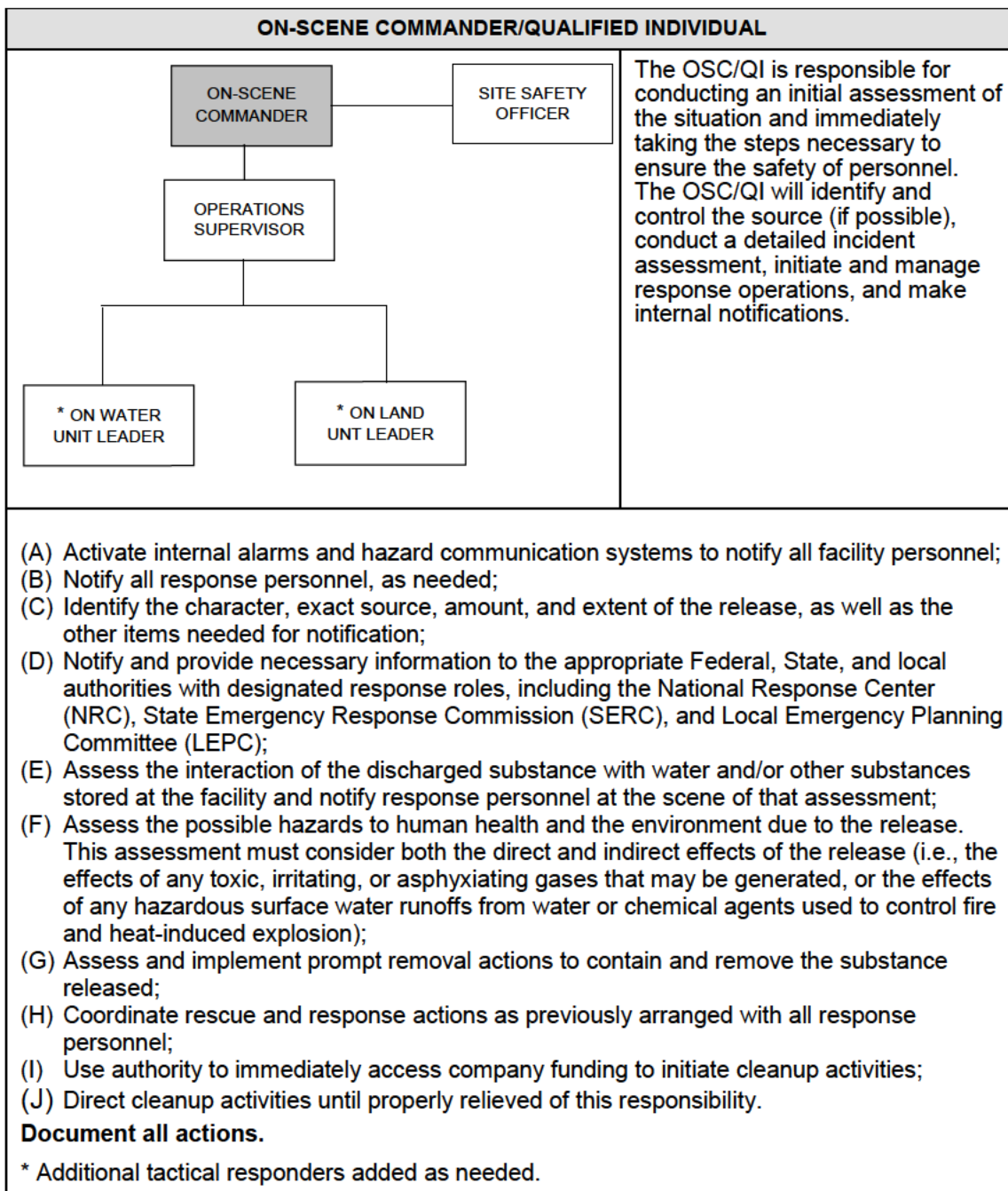
**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

<b>TABLE II-7</b>				
<b>COMPANY RESPONSE TEAM TELEPHONE LIST</b>				
Team Member (ORT)	Martin Cantu	(561) 844-5084 (office) (b) (6) (mobile)	HAZWOPER 24 HRS	30 mins
Team Member (ORT)	Jason Freeman	(561) 863-3707 (office) (b) (6) (mobile)	HAZWOPER 24 HRS	30 mins
Team Member (ORT)	Gonzalo Vizuite	(561) 845-4600 (office) (b) (6) (mobile)		30 mins
Site Safety Officer (ORT)	Abdy Hejazi	(561) 845-4842 (office) (b) (6) (home) (b) (6) (mobile)	HAZWOPER 40 HRS ICS 100/200	30 mins
On Land Unit Leader (ORT)	Melanie Roger	(561) 697-6936 (office) (b) (6) (mobile)	HAZWOPER 40 HRS ICS 100/200	30 mins
Incident Commander (CRT)	Kevin Gordon	(561) 845-4875 (office) (b) (6) (mobile)	HAZWOPER 40 ICS 100/200/300	60 mins
Safety Officer (CRT)	Kevin O'Donnell	(561) 691-2860 (office) (b) (6) (mobile)	HAZWOPER 40 Hour ICS 100/200/300	60 mins
On Land Unit Leader (CRT)	Ed Preast	(561) 691-2679 (office) (b) (6) (mobile)	HAZWOPER 40 Hour ICS 100/200/300	60 mins
On Water Unit Leader (CRT)	Andy Flajole	(561) 691-2766 (office) (b) (6) (mobile)	HAZWOPER 40 Hour ICS 100/200/300	60 mins
<b>FPL CORPORATE RESPONSE TEAM (CRT)</b>				
<b>RESPONSE TIME TO MARTIN TERMINAL: NOTIFIED WITHIN TWO HOURS, ONSITE WITHIN 2 to 3 HOURS</b>				
<b>NAME</b>	<b>FUNCTION</b>	<b>HOME LOCATION</b>	<b>TELEPHONE NUMBERS</b>	
FP&L Fleet Performance & Diagnostics Center (FPDC)	Staffed 24 hours/day, 7 days/week.	FPL Juno Beach	(866) 375-3732 (toll free; 24 hours) (561) 691-3600 (24 hours)	
Kevin Gordon	Incident Commander/ Qualified Individual (QI)	FPL Martin Terminal	(561) 845-4875 (office) (b) (6) (mobile)	

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

TABLE II-7			
COMPANY RESPONSE TEAM TELEPHONE LIST			
Melanie Roger	Operations Section Chief	FPL Martin Terminal	(561) 697-6936 (office) (b) (6) (mobile)
Mark Jones	Alternate Incident Commander/ Qualified Individual (QI)	FPL Juno Beach	(561) 691-7041 (office) (b) (6) (home) (b) (6) (mobile)
Jim Lindsay	Alternate Incident Commander/ Qualified Individual (QI)	FPL Juno Beach	(561) 691-7032 (office) (b) (6) (home) (b) (6) (mobile)
To activate the FPL Corporate Oil Spill Response Team, contact any of the above telephone numbers.			
FPL EXTERNAL AFFAIRS			
Don Kiselewski		(561) 691-7948 (office) (b) (6) (mobile)	
MARKETING & COMMUNICATIONS			
Marketing & Communications (If spill could attract media attention)		(888) 867-3050 or (561) 694-4442 (24 hours)	
ENVIRONMENTAL SERVICES			
Mark Jones		(561) 691-7041 (office) (b) (6) (home) (b) (6) (mobile)	
KING-MURRAY OPERATING COMPANY, LLC			
Mike Kordsmeier		(561) 845-3398 (office) (b) (6) (home) (b) (6) (mobile)	
FUEL INFRASTRUCTURE			
Kevin Gordon		(561) 845-4875 (office) (b) (6) (mobile)	
TRANSFORMER SPILLS			
Frank Nesbihal		(561) 681-3007 (office) (b) (6) (mobile)	
GAS PIPELINE EMERGENCIES			
FGT Gas Control		800-238-5066 (24-hour) 713-989-2222	
Gulfstream Gas Control		800-440-8475 (24-hour) 713-215-2550	
EMT Hourly Desk		(561) 625-7000 (24-hour)	
DOT NRC		800-424-8802	

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN



**FIGURE II-5 MARTIN TERMINAL ONSITE RESPONSE TEAM (ORT) ORGANIZATION CHART**

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

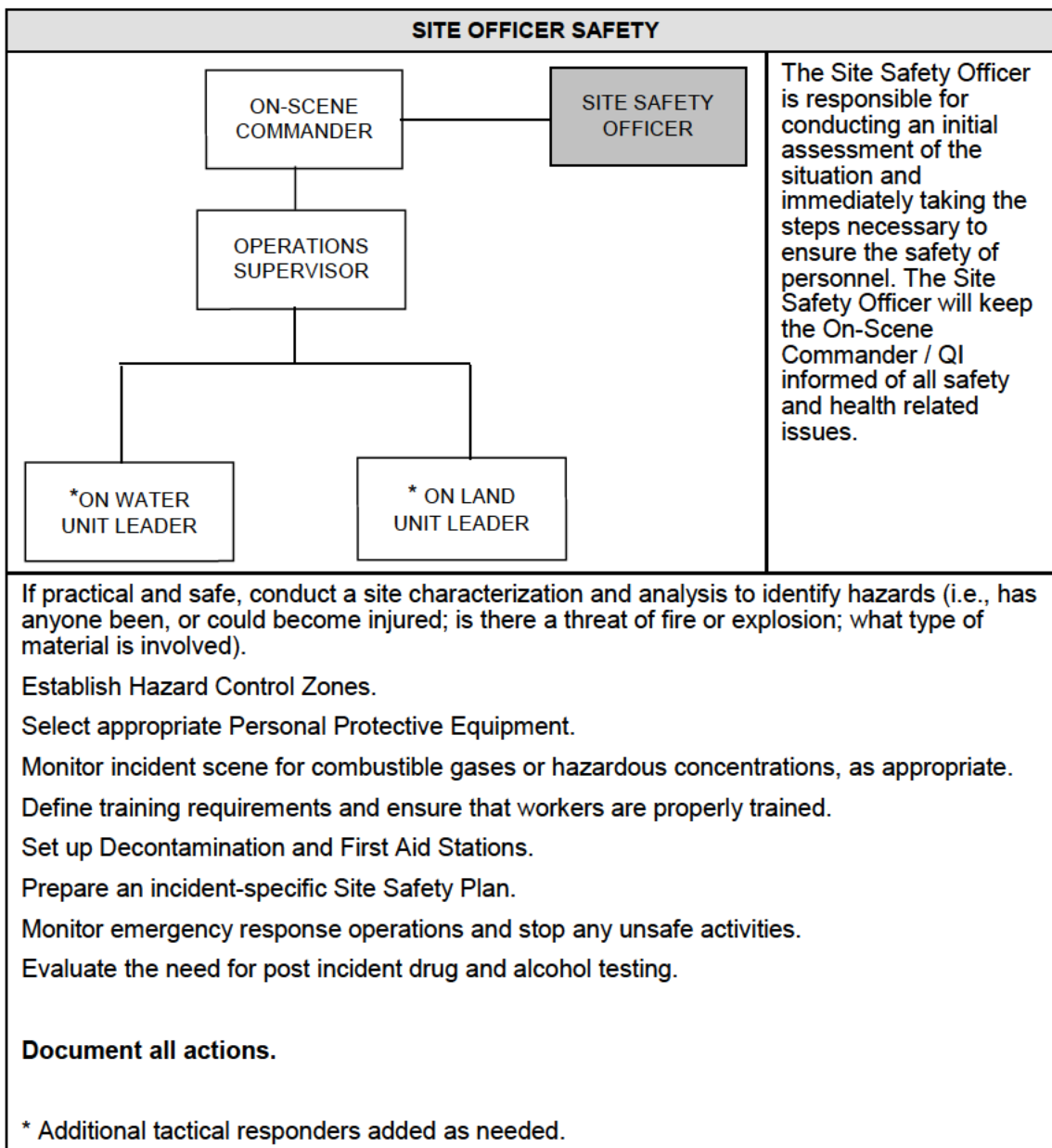


FIGURE II-5 (CONTINUED) MARTIN TERMINAL ONSITE RESPONSE TEAM (ORT) ORGANIZATION CHART

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

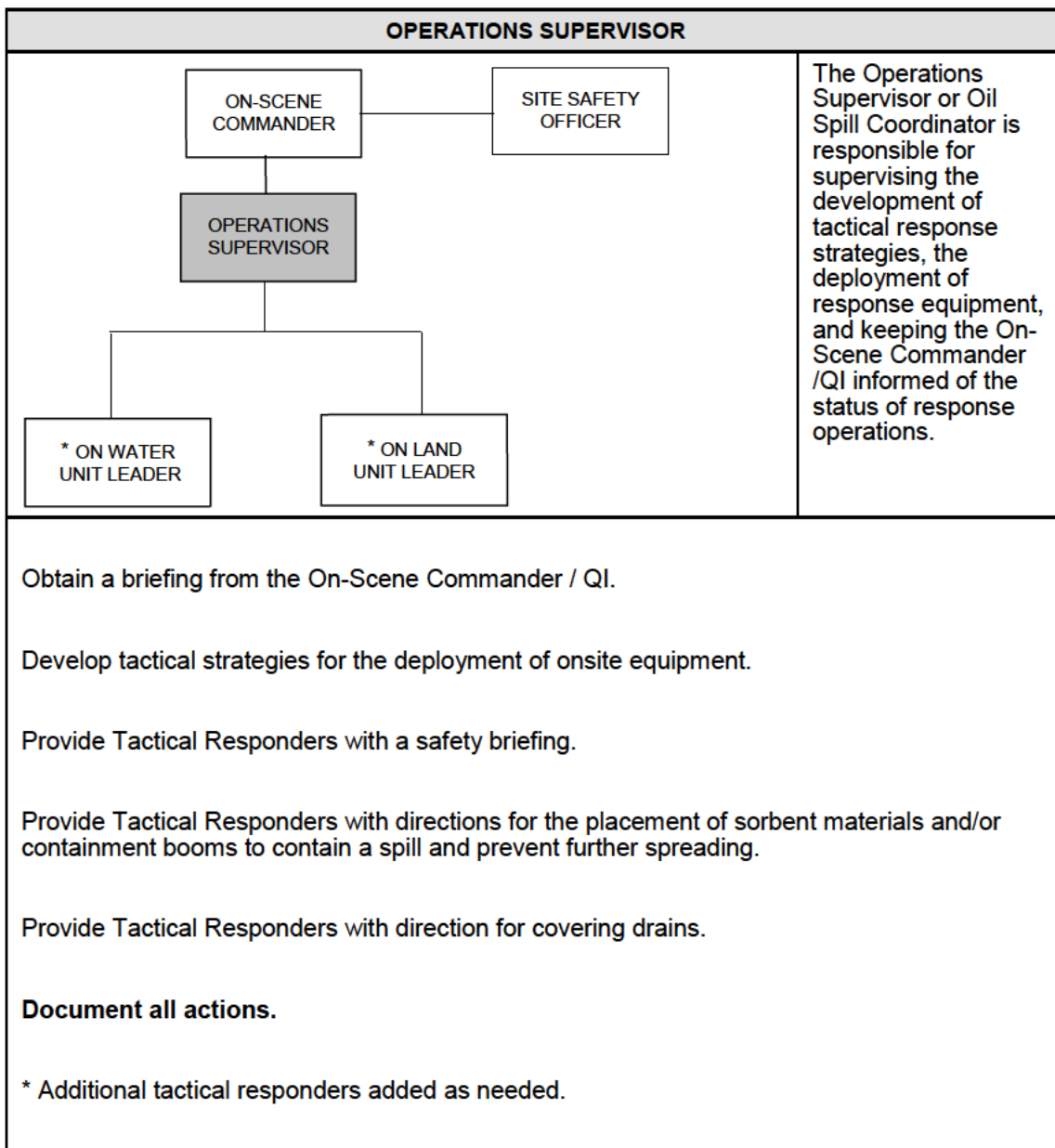
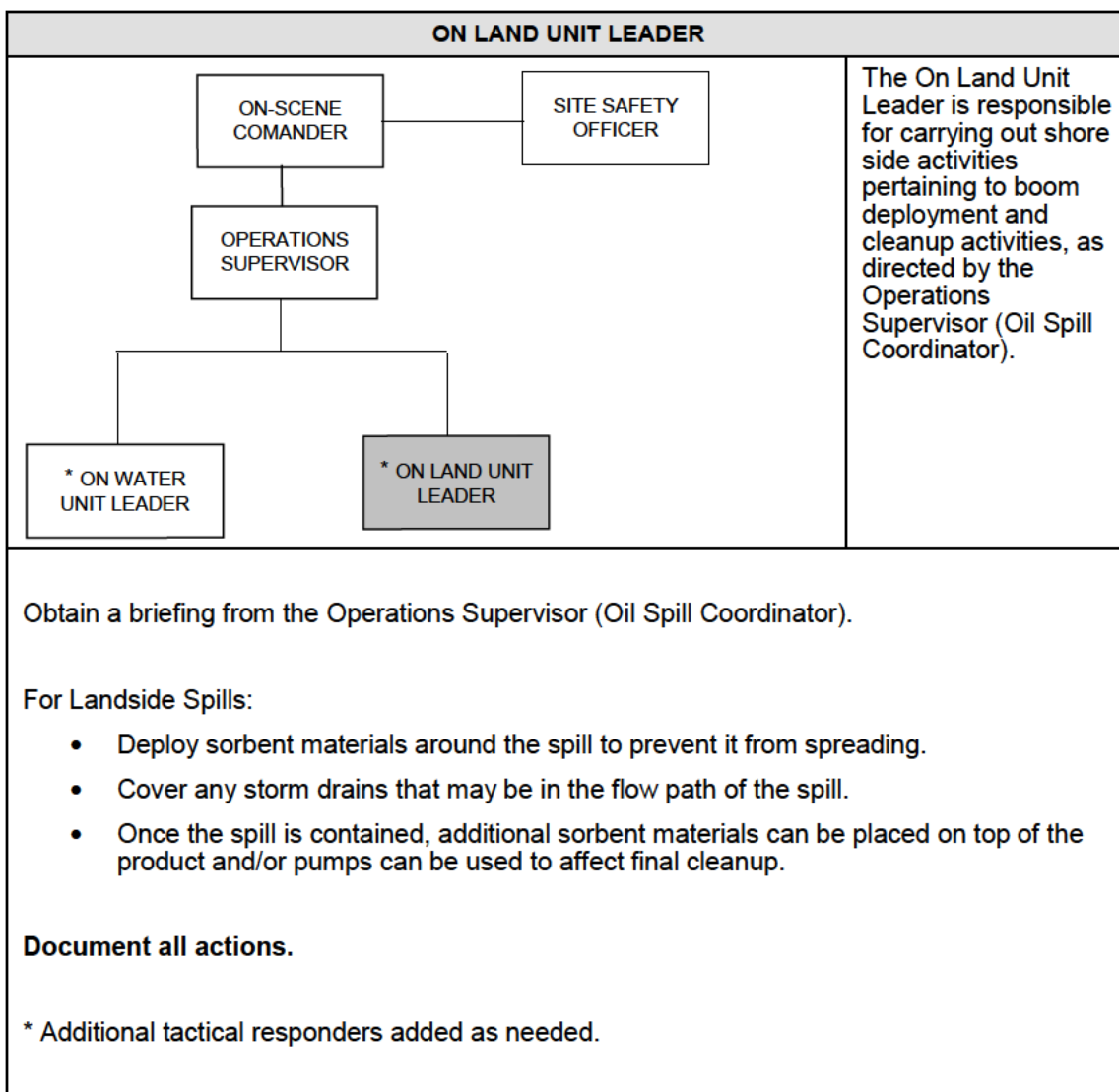


FIGURE II-5 (CONTINUED) MARTIN TERMINAL ONSITE RESPONSE TEAM (ORT) ORGANIZATION CHART



**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN****FIGURE II-5 (CONTINUED) MARTIN TERMINAL ONSITE RESPONSE TEAM (ORT) ORGANIZATION CHART**



## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

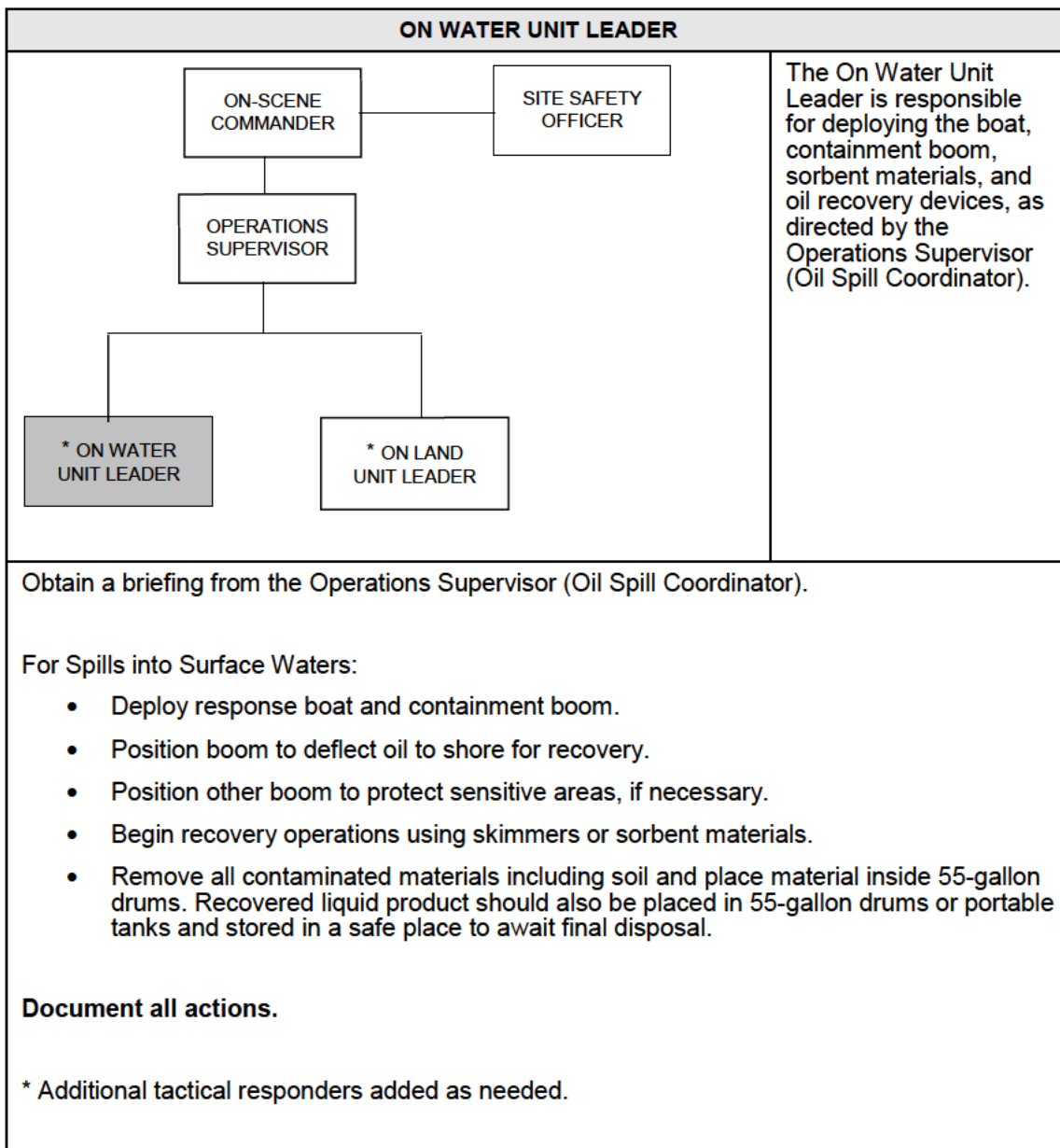
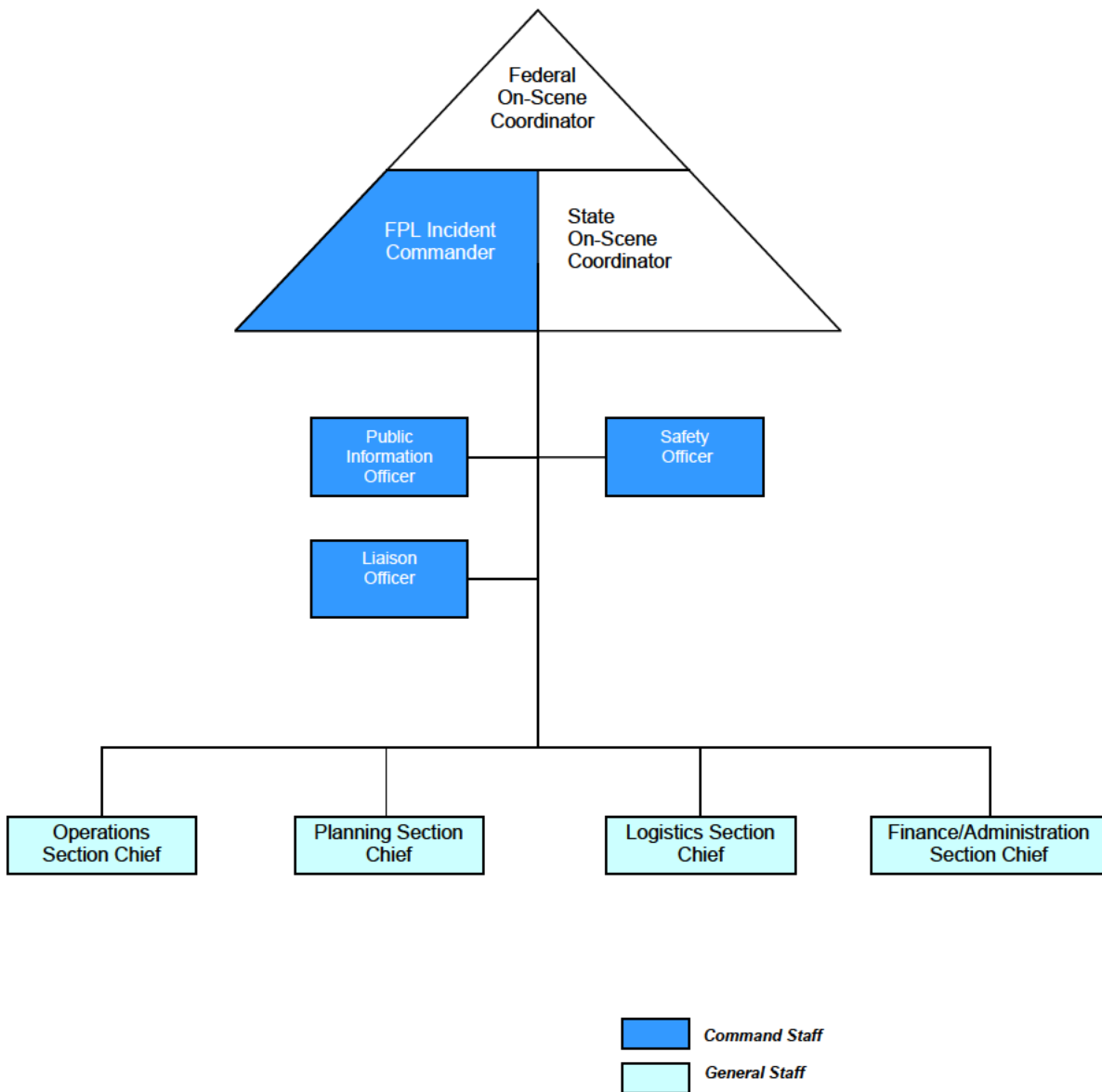


FIGURE II-5 (CONTINUED) MARTIN TERMINAL ONSITE RESPONSE TEAM (ORT) ORGANIZATION CHART

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN



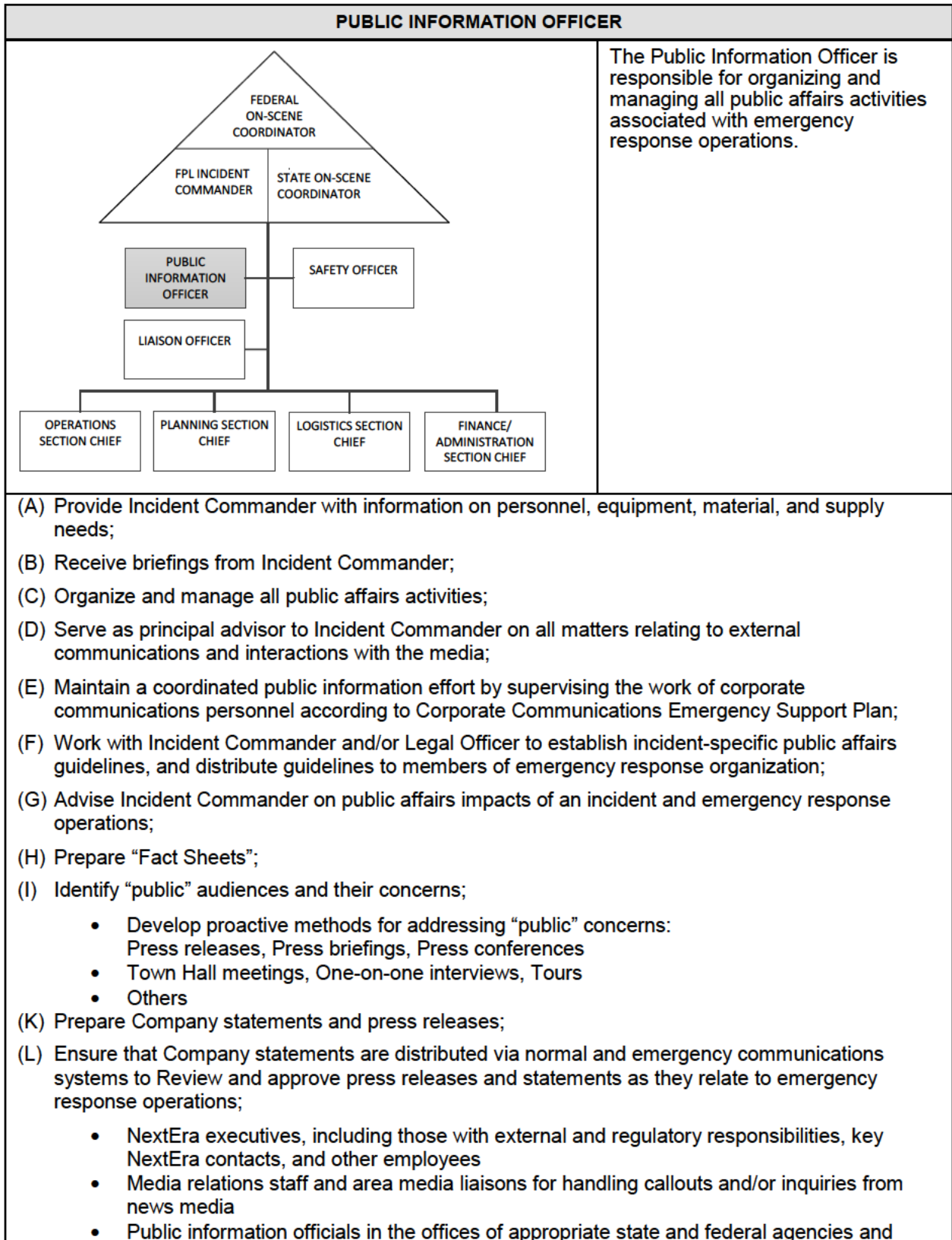
**FIGURE II-5A CORPORATE RESPONSE TEAM (CRT) ORGANIZATION CHART**

This diagram depicts the primary command and general staff positions of the Corporate Response Team (CRT). A diagram showing the full CRT organization chart is provided in chapter five of the Facility Response Plan. Job descriptions for the full CRT are provided in FPL's Corporate Response Plan.

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

INCIDENT COMMANDER	
<pre> graph TD     FOSC[FEDERAL ON-SCENE COORDINATOR] --- FPLIC[FPL INCIDENT COMMANDER]     FOSC --- SOC[STATE ON-SCENE COORDINATOR]     FPLIC --- PIO[PUBLIC INFORMATION OFFICER]     FPLIC --- SO[Safety Officer]     FPLIC --- LO[LIAISON OFFICER]     FPLIC --- OSC[OPERATIONS SECTION CHIEF]     FPLIC --- PSC[PLANNING SECTION CHIEF]     FPLIC --- LSC[LOGISTICS SECTION CHIEF]     FPLIC --- FASC[FINANCE/ADMINISTRATION SECTION CHIEF]   </pre>	<p>The Incident Commander is responsible for the overall management of emergency response operations, and for serving as FPL's primary spokesperson on the nature and status of these operations.</p>
<p>(A) Obtain briefing from Qualified Individual and/or On-Scene Commander;</p> <p>(B) Assess situation and determine: nature of incident; threat posed by incident to Company personnel, contract personnel and surrounding population; and appropriate level of Corporate Response Team (CRT) response;</p> <p>(C) Ensure that personnel safety is accorded the highest priority during conduct of emergency response operations;</p> <p>(D) Establish and maintain an organization that is capable of providing management direction to, and support for, at-the-scene tactical emergency response operations;</p> <p>(E) Manage emergency response operations and ensure that they are carried out in a manner consistent with Company policy, appropriate government directives, and the needs and concerns of impacted areas;</p> <p>(F) Serve as primary on-site contact person for government officials directly involved in emergency response operations; establish and maintain a Unified Command Structure;</p> <p>(G) Work with other members of Unified Command to define Strategic Objectives and response priorities, and ensure emergency response organization are carrying out emergency response operations in a manner consistent with objectives and priorities;</p> <p>(H) Ensure that all required and appropriate notifications have been made to senior Company management and government agencies;</p> <p>(I) Review and approve requests for non-FPL owned response resources, allocate critical resources, and authorize demobilization of resources;</p> <p>(J) Ensure that emergency response operations are carried out safely and in a well-organized manner</p> <p>(K) Monitor and evaluate effectiveness of emergency response operations;</p> <p>(L) Serve as FPL's primary spokesperson with news media on matters related to emergency response operations;</p> <p>(M) Review and approve press releases and statements as they relate to emergency response operations;</p> <p>(N) Work with other members of Unified Command to:</p> <ul style="list-style-type: none"> <li>• Approve and authorize implementation of Incident Action Plans</li> <li>• Approve and authorize implementation of General Plan</li> <li>• Approve and authorize implementation of incident-specific plans.</li> </ul> <p><b>Document all actions.</b></p>	

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

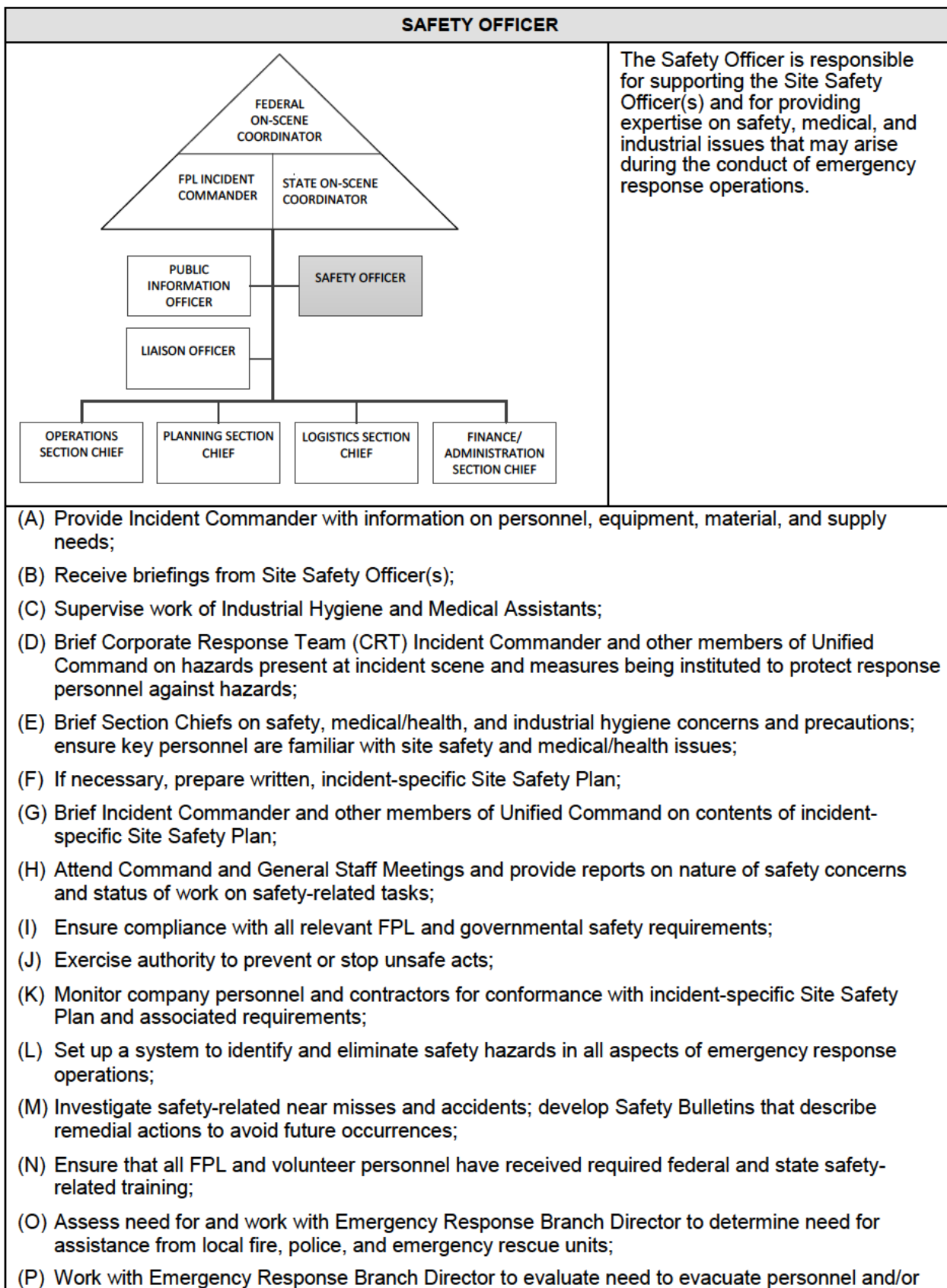


**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN****PUBLIC INFORMATION OFFICER**

- other emergency services organizations, as appropriate
- (J) Obtain necessary approvals from Incident Commander prior to the release of information to the public;
  - (K) Provide Situation Unit Leader with information on scheduled press briefings and conferences for posting in Situation Status Display;
  - (L) Work with government agency Public Information Officers to coordinate statements to the public; establish and maintain a Joint Situation Status Display, if appropriate;
  - (O) Establish lines of communication with: local press, radio, and TV outlets; national/international media representatives; investors and shareholders; concerned citizens' groups; and public organizations;
  - (P) Determine timing and location of press conferences and briefings;
  - (Q) Prepare Incident Commander for interactions with the media;
  - (R) Monitor press reports;
  - (S) Keep Incident Commander informed about the content and tenor of media reports;
  - (T) Organize and conduct/assist in arranging media tours;
  - (U) Work with Facilities Unit Leader to set up a media center, if warranted;
  - (V) Circulate progress reports for non-involved Company personnel and NextEra partners;
  - (W) Maintain record of newspaper articles, radio and television broadcasts, press conferences, and briefings;
  - (X) Ensure that Finance/Administration Section Chief is advised of all cost commitments;
  - (Y) Consider need for an alternate or backup person for extended (24-hour) coverage;
  - (Z) Compile and maintain appropriate documentation.

**Document all actions.**

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN





**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

<b>SAFETY OFFICER</b>
<p>residents of nearby communities that could be directly or indirectly affected by an incident and/or emergency response operations;</p> <p>(Q) Develop appropriate safety guidelines to be observed by personnel during emergency response operations;</p> <p>(R) Obtain necessary approvals from Incident Commander prior to the release of information to the public;</p> <p>(S) Work with Operations Section Chief in evaluation of at-the-scene tactical emergency response operations to ensure observation of appropriate safety guidelines;</p> <p>(T) Work with Supply Unit Leader to ensure that appropriate personal protective equipment is available to at-the-scene tactical responders;</p> <p>(U) Work with Facilities Unit Leader to ensure that partial and full decontamination facilities are set up and operational during conduct of field operations;</p> <p>(V) Investigate, report, and record all safety-related accidents that occur during emergency response operations, and develop remedial actions to avoid future occurrences;</p> <p>(W) Determine timing and location of press conferences and briefings;</p> <p>(X) Notify appropriate government safety officials of all safety-related accidents;</p> <p>(Y) Develop and maintain a record of the safety performance of response personnel;</p> <p>(Z) Maintain safety training records;</p> <p>(AA) Work with Medical Assistant to identify locations for First Aid Stations in field;</p> <p>(BB) Establish procedures for handling medical emergencies and evacuations;</p> <p>(CC) Serve as Company liaison with government agency safety officials;</p> <p>(DD) Work with Industrial Hygiene Assistant to establish and enforce industrial hygiene standards and requirements for field operations;</p> <p>(EE) Provide Situation Unit Leader with information needed for Safety and Health Considerations Status Board;</p> <p>(FF) Assist Medical Assistant in preparation of ICS 206 Medical Plan;</p> <p>(GG) Review Incident Action Plan field assignments; prepare changes to Site Safety Plan, if necessary;</p> <p>(HH) Ensure that Finance/Administration Section Chief is advised of all cost commitments;</p> <p>(II) Consider need for an alternate or backup person for extended (24-hour) coverage;</p> <p>(JJ) Compile and maintain appropriate documentation.</p> <p><b>Document all actions.</b></p>

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

LIAISON OFFICER	
<pre> graph TD     FOSC[FEDERAL ON-SCENE COORDINATOR]     FOSC --- FPL[FPL INCIDENT COMMANDER]     FOSC --- SOC[STATE ON-SCENE COORDINATOR]     FOSC --- Line(( ))     Line --- PIO[PUBLIC INFORMATION OFFICER]     Line --- SO[Safety Officer]     Line --- LO[LIAISON OFFICER]     LO --- OSC[OPERATIONS SECTION CHIEF]     LO --- PSC[PLANNING SECTION CHIEF]     LO --- LSC[LOGISTICS SECTION CHIEF]     LO --- FAC[FINANCE/ADMINISTRATION SECTION CHIEF]   </pre>	<p>The Liaison Officer is responsible for organizing and managing all government and community affairs activities associated with response operations.</p>
<p>(A) Provide Incident Commander with information on personnel, equipment, material, and supply needs;</p> <p>(B) Receive briefings from Incident Commander;</p> <p>(C) Organize and manage all government and community affairs activities;</p> <p>(D) Serve as principal advisor to Incident Commander on all matters relating to external communications and interactions with non-directly involved government and non-government organizations;</p> <p>(E) Advise Incident Commander on government affairs and community relations impacts of incidents and response operations;</p> <p>(F) Serve as CRT contact person for non-directly involved government and non-government organizations;</p> <p>(G) Establish contact with federal, state, and local government officials in threatened and/or affected areas and provide them with information on incident and status of response operations;</p> <p>(H) Identify "government agency" audiences and their concerns;</p> <p>(I) Develop proactive methods for addressing concerns of non-directly involved government organizations:</p> <ul style="list-style-type: none"> <li>- Fact sheets</li> <li>- Meetings</li> <li>- Town Hall meetings</li> <li>- Tours;</li> </ul> <p>(J) Advise Public Information Officer, Situation Unit Leader, and Resource Unit Leader on type of information that should be generated to keep federal, state, and local government officials informed of status of response operations;</p> <p>(K) As appropriate, provide information to non-directly involved government and non-government organizations;</p> <p>(L) As appropriate, arrange and conduct meeting with non-directly involved government and non-government organizations;</p> <p>(M) Provide Planning Section (<i>i.e., Chief or Situation Unit</i>) with information on scheduled meetings for posting in Information Center;</p>	



**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

<b>LIAISON OFFICER</b>
(N) As appropriate, organize and conduct/assist in arranging tours for non-directly involved government and non-government organizations;
(O) Convey information, requests, and legally constituted directives to Incident Commander and Section Chiefs;
(P) Coordinate preparation of answers to questions raised by government agencies;
(Q) Monitor statements made by non-directly involved government and non-government organizations;
(R) Keep Incident Commander informed about content and tenor of statements made by non-directly involved government and non-government organizations;
(S) Assist Planning Section Chief in obtaining government agency approvals/permits for conduct of response operations;
(T) Ensure that Finance Section Chief is advised of all cost commitments;
(U) Consider need for an alternate or backup person for extended (24-hour) coverage;
(V) Compile and maintain appropriate documentation.
<b>Document all actions.</b>

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

<b>OPERATIONS SECTION CHIEF</b>	
<pre> graph TD     FOSC[FEDERAL ON-SCENE COORDINATOR] --- FPLIC[FPL INCIDENT COMMANDER]     FOSC --- SOC[STATE ON-SCENE COORDINATOR]     FPLIC --- PIO[PUBLIC INFORMATION OFFICER]     FPLIC --- LO[LIAISON OFFICER]     SOC --- SO[SAFETY OFFICER]     FOSC --- OSC[OPERATIONS SECTION CHIEF]     FOSC --- PSC[PLANNING SECTION CHIEF]     FOSC --- LSC[LOGISTICS SECTION CHIEF]     FOSC --- FAC[FINANCE/ADMINISTRATION SECTION CHIEF] </pre>	<p>The Operations Section Chief is responsible for providing strategic direction and support to at-the-scene tactical emergency response operations. Also responsible for receiving information on nature and status of at-the-scene tactical emergency response operations, and providing information to Incident Commander and other Corporate Response Team (CRT) members.</p>
<p>(A) Check in at Incident Command Post (ICP);</p> <p>(B) Report to Incident Commander;</p> <p>(C) Receive initial and subsequent briefings from Incident Commander;</p> <p>(D) Provide Supply Unit Leader with information on personnel, equipment, materials, and supplies needed by Operations Section to carry out its functions;</p> <p>(E) Brief Section Chiefs on safety, medical/health, and industrial hygiene concerns and precautions; ensure key personnel are familiar with site safety and medical/health issues;</p> <p>(F) Size up incident, identify Operations Section problems and solutions, and break work of Operations Section into manageable tasks;</p> <p>(G) Assign tasks to appropriate Operations Section personnel; maintain proper span-of-control;</p> <p>(H) Assume responsibility for tasks delegated by Incident Commander;</p> <p>(I) Assist Incident Commander in analysis of incident potential and preparation of Strategic Objectives and response priorities;</p> <p>(J) Address Strategic Objectives and response priorities as they relate to work of Operations Section;</p> <p>(K) Represent Operations Section at all Command and General Staff Meetings; brief Incident Commander and members of Command and General Staffs on nature and status of work being done by Operations Section;</p> <p>(L) Assist Planning Section Chief in preparation of IAPs;</p> <p>(M) Assist Planning Section Chief in preparation of General Plan;</p> <p>(N) Ensure that at-the-scene tactical response personnel have equipment, materials, and supplies needed to carry out emergency response operations in a safe, effective, and efficient manner;</p> <p>(O) Serve as primary CRT contact person for Division and Group Supervisors, or delegate this responsibility to Branch Directors; receive or be briefed on Field Reports;</p> <p>(P) Review and ensure the appropriateness of strategy and tactics being employed by Division and Group Supervisors; provide necessary strategic direction;</p>	

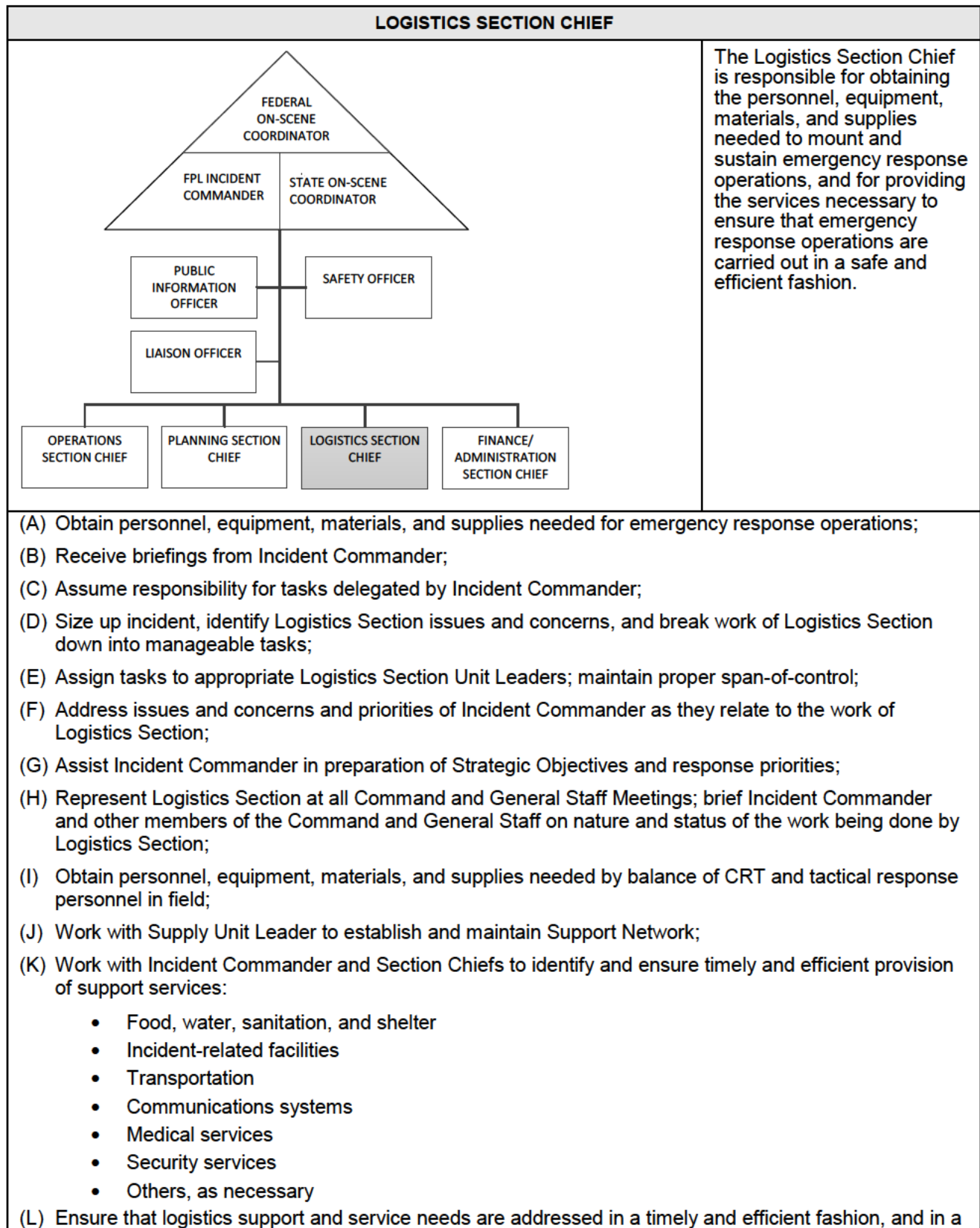
**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

<b>OPERATIONS SECTION CHIEF</b>
<p>(Q) Work with Operations Section Branch Directors to provide Situation Unit Leader with up-to-date information on nature and status of at-the-scene tactical emergency response operations;</p> <p>(R) Work with Operations Section Branch Directors to keep Division and Group Supervisors informed of changing weather conditions;</p> <p>(S) Receive information from Surveillance Unit Leader, Environmental Unit Leader, and Safety Officer on location and movement of spilled or emitted materials;</p> <p>(T) Work with Operations Section Unit Leaders and Environmental Unit Leader to identify sensitive area protection tactics;</p> <p>(U) Provide Public Information and Liaison Officers with updates on nature and status of at-the-scene tactical emergency response operations;</p> <p>(V) Ensure that concerns of impacted or threatened communities and non-directly involved government agencies and non-governmental organizations are adequately considered in formulation and execution of response strategies and tactics;</p> <p>(W) Ensure that Operations Section personnel are aware of and follow Company safety policies, appropriate government agency directives, and Site Safety Plan;</p> <p>(X) Authorize demobilization of tactical response resources;</p> <p>(Y) Work with Operations Section Unit Leaders to ensure that Finance/Administration Section Chief is advised of all cost commitments by the Operations Section;</p> <p>(Z) Work with Operations Section Unit Leaders to ensure that appropriate documentation is compiled by Division and Group Supervisors and forwarded to Documentation Unit Leader;</p> <p>(AA) Work with Deputy Incident Commander to develop a staffing plan for 24/7 emergency response Operations;</p> <p>(BB) Compile and maintain appropriate documentation.</p> <p><b>Document all actions.</b></p>

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

PLANNING SECTION CHIEF	
<pre> graph TD     FOSC[FEDERAL ON-SCENE COORDINATOR] --&gt; FPLIC[FPL INCIDENT COMMANDER]     FOSC --&gt; SOC[STATE ON-SCENE COORDINATOR]     FPLIC --&gt; PIO[PUBLIC INFORMATION OFFICER]     FPLIC --&gt; LO[LIAISON OFFICER]     SOC --&gt; SO[Safety Officer]     FPLIC --&gt; PSC[PLANNING SECTION CHIEF]     SOC --&gt; PSC     PSC --&gt; OSC[OPERATIONS SECTION CHIEF]     PSC --&gt; LSC[LOGISTICS SECTION CHIEF]     PSC --&gt; FAC[FINANCE/ADMINISTRATION SECTION CHIEF] </pre>	<p>The Planning Section Chief is responsible for provision of short-term and, if necessary, long-term planning; ensuring the conduct of environmentally sound emergency response operations; the compilation and display of information on the nature and status of emergency response operations; and the compilation and retention of documentation.</p>
<p>(A) Provide Supply Unit Leader with information on personnel, equipment, material, and supply needs for Planning Section;</p> <p>(B) Receive briefings from Incident Commander;</p> <p>(C) Size up incident, identify Planning Section problems and solutions, and break work of Planning Section down into manageable tasks;</p> <p>(D) Assign tasks to appropriate Planning Section personnel; maintain proper span-of-control;</p> <p>(E) Assume responsibility for tasks delegated by Incident Commander;</p> <p>(F) Address issues and concerns and priorities of Incident Commander as they relate to the work of Planning Section;</p> <p>(G) Assist Incident Commander in evaluation of incident potential and preparation of Strategic Objectives and response priorities;</p> <p>(H) Represent Planning Section at all Command and General Staff Meetings; brief Incident Commander and other members of the Command and General Staff on nature and status of work being done by Planning Section;</p> <p>(I) Facilitate preparation and distribution of Incident Action Plans (IAPs);</p> <p>(J) Chair all Objectives, Tactics, and Planning Meetings and Operations Briefings;</p> <p>(K) If appropriate, facilitate preparation of General Plan;</p> <p>(L) Facilitate collection and posting of information on nature and status of incident and emergency response operations in Situation Status Display;</p> <p>(M) Facilitate preparation of ICS 209 Situation Status Reports;</p> <p>(N) Facilitate collection and retention of appropriate documentation;</p> <p>(O) Ensure technical specialists are checked in and assigned to appropriate functions within CRT;</p> <p>(P) Provide Public Information and Liaison Officers with accurate, up-to-date information on emergency response operations;</p> <p>(Q) Assist Liaison Officer in responding to requests for information from non-directly involved government agencies and non-governmental organizations;</p> <p>(R) Provide Operations Section Chief and/or Operations Section Branch Directors with current and predicted weather data;</p> <p>(S) Ensure that Finance/Administration Section Chief is advised of all cost commitments by Planning Section;</p> <p>(T) Consider need for an alternate or backup person for extended (24-hour) coverage;</p> <p>(U) Compile and maintain appropriate documentation.</p> <p><b>Document all actions.</b></p>	

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN





**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN****LOGISTICS SECTION CHIEF**

manner that maximizes personnel safety and efficiency of emergency response operations;

- (AA) Ensure that guidelines, procedures, forms, and data management systems necessary to manage acquisition of response resources and control inventory are followed by Logistics Section personnel;
- (BB) Work with Finance/Administration Section Chief to institute requisition procedure;
- (CC) Provide Finance/Administration Section Chief with copy of all Purchase Orders;
- (DD) Ensure that an overall inventory management system is maintained of all equipment, materials, and supplies purchased, rented, borrowed, or otherwise obtained during emergency response operations;
- (EE) Ensure that programs are in place to inspect and service equipment, store spare parts, and repair or replace damaged or defective equipment;
- (FF) Ensure that records are maintained on equipment and services provided and contracts executed during emergency response operations;
- (GG) Ensure that Finance/Administration Section Chief is advised of all cost commitments made by Logistics Section;
- (HH) Provide Resource Unit Leader with up-to-date information on destination and ETA of all equipment and personnel resources obtained for emergency response operations;
- (II) Assist Planning Section Chief in preparation of Incident Action Plans and General Plan;
- (JJ) Provide Operations Section Chief with recommendations on timing of release of logistics services and support personnel and equipment;
- (KK) Consider need for an alternate or backup person for extended (24-hour) coverage;
- (LL) Compile and maintain appropriate documentation.

**Document all actions.**

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

FINANCE/ADMINISTRATION SECTION CHIEF	
<pre> graph TD     FOSC[FEDERAL ON-SCENE COORDINATOR] --- FPLIC[FPL INCIDENT COMMANDER]     FOSC --- SOC[STATE ON-SCENE COORDINATOR]     FPLIC --- PIO[PUBLIC INFORMATION OFFICER]     FPLIC --- LO[LIAISON OFFICER]     SOC --- SO[SAFETY OFFICER]     FPLIC --- OSC[OPERATIONS SECTION CHIEF]     FPLIC --- PSC[PLANNING SECTION CHIEF]     FPLIC --- LSC[LOGISTICS SECTION CHIEF]     FPLIC --- FASC[FINANCE/ADMINISTRATION SECTION CHIEF]     SOC --- OSC     SOC --- PSC     SOC --- LSC     SOC --- FASC           </pre>	<p>The Finance Section Chief is responsible for managing and supervising all financial and administrative aspects of emergency response operations, including: accounting, invoice processing, cost control, insurance coordination, and financial reporting.</p>
<p>(A) Provide Logistics Section with information on personnel, equipment, materials, and supply needs for Finance/Administration Section;</p> <p>(B) Receive briefings from Incident Commander;</p> <p>(C) Size up incident, identify Finance/Administration Section issues and concerns, and break work of Finance/Administration Section down into manageable tasks;</p> <p>(D) Assign tasks to appropriate Finance/Administration Section personnel; maintain proper span-of-control;</p> <p>(E) Assume responsibility for tasks delegated by Incident Commander;</p> <p>(F) Address issues and concerns and priorities of Incident Commander as they relate to work of Finance/Administration Section;</p> <p>(G) Assist Incident Commander in preparation of Strategic Objectives;</p> <p>(H) Represent Finance/Administration Section at all Command and General Staff Meetings; brief Incident Commander and other members of Command and General Staff on nature and status of work being done by Finance/Administration Section;</p> <p>(I) Work with Logistics Section Chief to institute a requisition procedure;</p> <p>(J) Prepare short- and long-term cost information for Incident Commander;</p> <p>(K) Work with Legal Officer on issues regarding insurance coverage and exclusions, claims management processing, and approach to settlements;</p> <p>(L) Facilitate preparation and distribution of guidelines, procedures, forms, and establishment of a data management systems necessary to account for expenditures made during emergency response operations;</p> <p>(M) Review all relevant insurance programs and ensure notification of insurers and appointment of loss adjusters;</p> <p>(N) Ensure that appropriate cost and accounting control systems are established;</p> <p>(O) Ensure that expenditure tracking sheet is utilized and kept current;</p> <p>(P) Provide adequate accounting systems, including: auditing, billing, and documenting labor, material, and services used;</p> <p>(Q) Oversee administration of vendor contracts, and service and equipment rental agreements;</p> <p>(R) Ensure that adequate pool of personnel is retained and compensated;</p> <p>(S) Consider need for an alternate or backup person for extended (24-hour) coverage;</p> <p>(T) Compile and maintain appropriate documentation.</p> <p><b>Document all actions.</b></p>	

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

**TABLE II-8  
MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL		RESPONSE PERSONNEL		400 FPL System				
TELEPHONE NUMBER: (561) 845-3398		EFFECTIVE DAILY RECOVERY RATE (derated)		52,853 Bbls/Day				
CONTACT: Mike Kordsmeier		CONTAINMENT BOOM		28,800 FEET				
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
<b>CONTAINMENT</b>								
Containment Boom	900 ft			new	Box No. 19			36" Overall
Containment Boom	900 ft			new	Box No. 18			36" Overall
Containment Boom	900 ft			new	Box No. 17			36" Overall
Containment Boom	900 ft			new	Box No. 16			36" Overall
Containment Boom	1000 ft			used	Trailer No. 9722			18"
Containment Boom	8400 ft			used	Trailer No. 9717			18"
Containment Boom	1000 ft			used	Trailer No. 9723			36"
Containment Boom	1900 ft			new	Box No. 12			18"
Containment Boom	1900 ft			new	Box No. 13			18"
Containment Boom	2000 ft			new	Box No. 14			18"
Containment Boom	2100 ft			new	Box No. 15			18"
Containment Boom	400 ft			new	Box No. 10			36"
Containment Boom	500 ft	Lapio		new	Box No. 10			
Containment Boom	500 ft	Petro		new	Box No. 10			



**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

<b>TABLE II-8</b> <b>MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT</b>								
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TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)				52,853 Bbls/Day	
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM				28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Containment Boom	3 sets of 2	Voss Barge			Box No. 23			
CONTAINMENT								
Absorbent Pads	576 bales	Various		New	Box No. 26			18 in x 18 in, 100 pads/bale
Absorbent Pads	108 bales			New	Box No. 27			36 in x 36 in
Absorbent Pads	132 bales			New	Box No. 27			18 in x 18 in, 100 pads/bale
Drum Skimmer	3 units	Elastec	100		Box No. 2			2 head floating w/power paks/hoses/3"x2" hydraulic pumps
Drum Skimmer	2 units	Elastec			Box No. 3			2 head floating w/power paks/hoses/3"x2" hydraulic pumps
Drum Skimmer	1 unit	Elastec			Box No. 3			4 head floating-spare no power pak
Floating Bladder	1 unit	CanFlex	FCD-25	1993	Box No. 3			2500 gal.
Floating Bladder	1 unit	CanFlex	FCD-25	1993	Box No. 6			2500 gal.
Floating Bladder	1 unit	CanFlex	FCD-25	1993	Box No. 7			2500 gal ea

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

**TABLE II-8**  
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TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)				52,853 Bbls/Day	
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM				28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Portable Oil Bladder	1 unit	Amer. Mar.		1992	Box No. 2			2500 gal. can
Portable Oil Bladder	1 unit	Amer. Mar.			Box No. 5			2500 gal. can
Portable Oil Bladder	1 unit	Amer. Mar.		1992	Box No. 7			2500 gal can
Portable Tanks	2 units	Quick Tank		1992	Trailer 9708			2000 gal each
Portable Tank	1 unit	Fast Tank		2000	OSR Building			2500 gallons
Rope Mop Skimmer	2 units	Oil Mop	Mark II-24	1993	Box No. 5		8832 total	Vertical/2-4 in. ropes/power paks & hydr hoses
Rope Mop Skimmer	2 units	small	Motion		Box No. 6			Vertical-w/power paks/hydr hoses
Snair	29 bags				Box No. 28			
Snair	30 bags				Box No. 24			
Snair on a Rope	82 bags				Box No. 24			
Snair on a Rope	40 bags				Box No. 28			
Sorbent Boom	84 bales	(810)		New	Box No. 25			8"
Sorbent Boom	21 bales	(610)		New	Box No. 25			6"
Sorbent Boom	5 bales	(810)		New	Box No. 28			8"
Sorbent Boom	22 bales	(610)		New	Box No. 28			6"
Sorbent Boom	4 bales	(410)		New	Box No. 28			4"

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

**TABLE II-8  
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MARTIN TERMINAL			RESPONSE PERSONNEL				400 FPL System	
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)				52,853 Bbls/Day	
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM				28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Sorbent Boom	13 rolls			New	Box No. 27			
Vacuum System	1 unit	Huber	100	1993	Box No. 1	1500	10286 total	skid mounted
Viscous Pom Poms	24 bags				Box No. 24			
Weir Skimmer	3 units	Slick Bar	Manta	1993	Trailer 9708			Flex Ray
Weir Skimmer	1 unit	Douglas	18000-SH	1993	Trailer 9708			Skim Pac
Weir Skimmer	3 units	Douglas	4200-SH	1992	Trailer 9708			Skim Pac
Weir Skimmer	1	Foilex	TDS 250	2000	OSR Building		19,885 bbl/day	Ocean Skimmer
<b>PUMPS</b>								
Air Operated Pumps	3 units	Wilden	M-15	1993	Trailer 9708			
Diesel Pump	1 unit	CH & E		1996	Box No. 7			3"
Lapio Pumps	2 units	Bowie			Box No. 4			With power paks/200' each hydraulic hose
Peristolic Pump	1 unit				Box No. 4			2"
Peristolic Pump	1 unit				Box No. 3			2"
Peristolic Pump	1 unit				Box No. 3			2"
Peristolic Pump	1 unit				Box No. 5			2"
Peristolic Pump	1 unit				Box No. 6			2"
Air Operated Pumps	4 units	Wilden	M-15	1993	Trailer	240 each	6,580 total	

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

**TABLE II-8  
MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL TELEPHONE NUMBER: (561) 845-3398			RESPONSE PERSONNEL EFFECTIVE DAILY RECOVERY RATE (derated)					400 FPL System 52,853 Bbls/Day
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM					28,800 FEET
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Air Operated Pumps	5	CH & E	3239WH	1996	Containers	380	13028 total	No. 2 Fired
<b>MISCELLANEOUS</b>								
Skimmer Hose	450 ft	Douglas Engr		1992	Trailer			
Visqueen	6 rolls			1992	Trailer			4 mm x 20 ft x 100 ft
Rubber Boots	30 pairs			1992	Trailer			
Coveralls	2 boxes			1992	Trailer			24 pair/box
Plastic Liners	10 boxes			1992	Trailer			55 gal' 100 units/box
Shovels	12 units			1992	Trailer			Square Point
Shovels	18 units			1992	Trailer			Round Ended
Hard Hats	2 boxes			1992	Trailer			50 units/box
Nylon Gloves	12 pair			1992	Trailer			
Rubber Gloves	4 bdls			1992	Trailer			12 pair/bundle
Hose 2 in suction	1,500 ft			1993	Trailer			with cam-lock fittings
Hose 2 in discharge	3,000 ft			1993	Trailer			with cam-lock fittings

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

**TABLE II-8**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL				400 FPL System	
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)				52,853 Bbls/Day	
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM				28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Hose 4 in suction	1,000 ft			1993	Trailer			with cam-lock fittings
Hose 4 in discharge	1,000 ft			1993	Trailer			with cam-lock fittings
Anchor & Buoy Systems	30 units			1993	Trailer			22 lbs
Anchor & Buoy Systems	110 units			1993	Trailer			22 lbs
Anchors	100 units			1993	Trailer			22 lbs
Tow Bridles	10 units			1993	Trailer			
Buoys	10 units	OMI	B1147-R	1993	Trailer			
Lighted Buoys	60 units	OMI	B1147-RL 560	1993	Trailer			
Air Bottle	8 units	Scott			Trailer 9708			
Air Fitting	7 units				Trailer 9708			2" Female NPT
Air Fitting	2 units				Trailer 9708			3" Female NPT
Air Fitting	21 units				Trailer 9708			3/4" Elbow
Air Fitting	13 units				Trailer 9708			3/4" Female
Air Fitting	7 units				Trailer 9708			3/4" Female NPT
Air Fitting	16 units				Trailer 9708			3/4" Male

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

**TABLE II-8**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL				400 FPL System	
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)				52,853 Bbls/Day	
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM				28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Air Fitting	20 units				Trailer 9708			3/4" Male NPT
Air Fitting	6 units				Trailer 9708			3/4" x 6" Male
Air Fitting	2 units				Trailer 9708			4" Female NPT Ball Valve
Air Fitting	100 units				Trailer 9708			Air King Safety Clip
Anchors	48 units	Danforth			Box No. 21			22 lbs
Anchors	46 units	Danforth			Box No. 22			22 lbs
Anchors	48 units	Danforth			Box No. 20			22 lbs
Anchors/Chains/Ropes	48 units	Danforth			Box No. 21			22 lbs
Anchors/Chains/Ropes	46 units				Box No. 22			
Anchors/Chains/Ropes	48 units				Box No. 20			
Anchor Rope	35 units				Trailer 9708			6'
Anchor Rope	69 units				Trailer 9708			Long
Barricade Lights	7 units				Trailer 9708			
Bladder Valve	2 units				Trailer 9708			3"
Boom Pin	1 box				Trailer 9708			173/Count
Bug Spray	3 units				Trailer 9708			Cans
Buoys	34 units	OMI	B1147-R	1993	Trailer 9708			

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

**TABLE II-8  
MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL TELEPHONE NUMBER: (561) 845-3398			RESPONSE PERSONNEL EFFECTIVE DAILY RECOVERY RATE (derated)				400 FPL System 52,853 Bbls/Day	
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM				28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Buoys	9 units				Trailer 9708			Inflatable
Buoys	71 units	OMI	B1147-R		Box No. 21			
Buoys	71 units	Roto			Box No. 22			
Buoys	72 units	Roto			Box No. 20			
Cam-Lok	10 units				Trailer 9708			1 1/2" Female x 1 1/2" Male NPT
Cam-Lok	12 units				Trailer 9708			1 1/2" Male x 1 1/2" Male NPT
Cam-Lok	27 units				Trailer 9708			3" Male x 3" Female NPT
Cam-Lok	14 units				Trailer 9708			2" Female x 2" Female
Cam-Lok	33 units				Trailer 9708			2" Plug
Cam-Lok	19 units				Trailer 9708			3" Plug
Cam-Lok	28 units				Trailer 9708			2" Cap
Cam-Lok	22 units				Trailer 9708			3" Cap
Cam-Lok	25 units				Trailer 9708			4" Cap
Cam-Lok	23 units				Trailer 9708			4" Plug
Cam-Lok	15 units				Trailer 9708			4" Male x 4" Male NPT

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

**TABLE II-8  
MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL TELEPHONE NUMBER: (561) 845-3398			RESPONSE PERSONNEL EFFECTIVE DAILY RECOVERY RATE (derated)				400 FPL System 52,853 Bbls/Day	
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM				28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLS)	EQUIPMENT DESIGN
Cam-Lok	19 units				Trailer 9708			3" Female x 3" Male NPT
Cam-Lok	14 units				Trailer 9708			3" Female x 2" Male
Cam-Lok	28 units				Trailer 9708			4" Female x 3" Male NPT
Cam-Lok	9 units				Trailer 9708			1 1/2" Female x 1 1/2" Female NPT
Cam-Lok	4 units				Trailer 9708			2" Female x 2" Female
Cam-Lok	9 units				Trailer 9708			2" Female x 2" Male
Cam-Lok	19 units				Trailer 9708			2" Female x 1 1/2" Male
Cam-Lok	19 units				Trailer 9708			2" Female x 2" Male
Cam-Lok	37 units				Trailer 9708			3" Male x 3" Male NPT
Cam-Lok	13 units				Trailer 9708			3" Male x 3" Male
Cam-Lok	14 units				Trailer 9708			2" Male x 2" Male
Cam-Lok	8 units				Trailer 9708			2" Male x 1 1/2 " Male
Cam-Lok	31 units				Trailer 9708			2" Male x 2" Female NPT



**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

**TABLE II-8  
MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL					400 FPL System
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)					52,853 Bbls/Day
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM					28,800 FEET
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Cam-Lok	10 units				Trailer 9708			1 1/2" Male x 1 1/2" Female NPT
Cam-Lok	40 units				Trailer 9708			2" Male x 2" Male NPT
Cam-Lok	19 units				Trailer 9708			4" Female x 2" Male
Cam-Lok	7 units				Trailer 9708			3" Female x 2" Female
Cam-Lok	29 units				Trailer 9708			3" Male x 2" Male
Cam-Lok	31 units				Trailer 9708			2" Female x 2" Female
Cam-Lok	5 units				Trailer 9708			3" Female x 2" Female NPT
Cam-Lok	3 units				Trailer 9708			3" Female x 3" Female NPT
Cam-Lok	4 units				Trailer 9708			4" Female x 4" Female NPT
Cam-Lok	11 units				Trailer 9708			4" Female x 3" Male NPT
Cam-Lok	1 unit				Trailer 9708			3" Female x 2" Female
Cam-Lok	5 units				Trailer 9708			4" Female x 3" Female NPT

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

**TABLE II-8**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL				400 FPL System	
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)				52,853 Bbls/Day	
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM				28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Cam-Lok	1 unit				Trailer 9708			4" Female x 3" Female
Cam-Lok	9 units				Trailer 9708			3" Female x 3" Female
Cam-Lok	20 units				Trailer 9708			4" Male x 2" Female
Cam-Lok	18 units				Trailer 9708			3" Male x 2" Female
Cam-Lok	10 units				Trailer 9708			4" Female x 3" Male
Cam-Lok	10 units				Trailer 9708			4" Female x 3" Female
Cam-Lok	20 units				Trailer 9708			4" Male x 3" Male
Cam-Lok	4 units				Trailer 9708			6" Female x 4" Male
Cam-Lok	4 units				Trailer 9708			6" Male x 4" Female
Cooler/Cup Holder	5 units	Gott		1997	Trailer 9708			Cone Cup Holder
Davits	6 units				Box No. 23			w/manual winches
Drinking Cups	33 boxes				Trailer 9708			33 boxes
Drum Liners	5 boxes				Trailer 9708			150 count
Fire Extinguisher	9 units				Trailer 9708			
Floating Control Arms for VOSS barge	3 sets of 2				Box No. 23			

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

**TABLE II-8**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL				400 FPL System	
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)				52,853 Bbls/Day	
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM				28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Gloves	479 pairs			1997	Trailer 9708			Grain
Hammer Drills	2 units				Trailer 9708			
Hand Lights	48 units				Trailer 9708			
Hard Hats	125 units			1997	Trailer 9708			Standard/Orange
Hard Hat Lights	154 units				Trailer 9708			
Hose Floats	48 units				Trailer 9708			2" Male NPT x 1 1/2" Female NPT
Hose 2" discharge	1700 ft				Box No. 9			w/cam-lock fittings
Hose 2" suction	650 ft				Box No. 1			w/cam-lock fittings
Hose 2" suction	225 ft				Box No. 2			w/cam-lock fittings
Hose 2" suction	425'				Box No. 3			w/cam-lock fittings
Hose 2" suction	100 ft				Box No. 5			w/cam-lock fittings
Hose 2" suction	200 ft				Box No. 6			w/cam-lock fittings
Hose 2" suction	350 ft				Box No. 7			w/cam-lock fittings
Hose 3" discharge	2050 ft				Box No. 8			w/cam-lock fittings
Hose 3" suction	1050 ft				Box No. 4			w/cam-lock fittings
Hose 3" suction	400 ft				Box No. 7			w/cam-lock fittings
Hose 4" discharge	475 ft				Box No. 9			w/cam-lock fittings

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

**TABLE II-8**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL				400 FPL System	
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)				52,853 Bbls/Day	
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM				28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Hose 4" suction	200 ft				Box No. 9			w/cam-lock fittings
Hose 4" suction	50 ft				Box No. 1			w/cam-lock fittings
Hose 4" suction	100 ft				Box No. 7			w/cam-lock fittings
Life Vests	80 units				Trailer 9708			
Lifting Strap	3 units				Trailer 9708			
Lighted Buoys	4 units	OMI	B1147-RL560	1993	Trailer 9708			
Light Stand	2 units			1997	Trailer 9708			6' w/2 500
Light Sticks	23 units				Trailer 9708			
Megaphone/Siren	2 units			1997	Trailer 9708			15-20 watt
Nylon Velcro Strap	48 units				Trailer 9708			
Oil	26 pints				Trailer 9708			2 Cycle
Power Cords	22 units				Trailer 9708			
Pump Strainer	2 units				Trailer 9708			3"
Rain Gear	89 units				Trailer 9708			Jackets
Rain Gear	80 units				Trailer 9708			Trousers
Rain Suits	288 units			1997	Trailer 9708			Large/Disposable
Rake	3 units				Trailer 9708			

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

**TABLE II-8  
MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL				400 FPL System	
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)				52,853 Bbls/Day	
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM				28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Respirator	10 units				Trailer 9708			
Respirator	4 units	Scott	Air Paks		Trailer 9708			Self Contained
Respirator	1 unit	Scott	Air Paks		Trailer 9708			Umbilical
Respirator Cartridges	14 units				Trailer 9708			
Rope	1 unit				Trailer 9708			500'/Nylon - 3/4"
Rope	1 unit				Trailer 9708			600'/Poly - 3/8"
Rope	10 units				Trailer 9708			600'/Poly - 5/8"
Rope	1 unit				Trailer 9708			600'/Nylon - 1/4"
Rope	1 unit				Trailer 9708			600'/Brown Poly - 3/8"
Rubber Boots	65 pairs			1992	Trailer 9708			
Rubber Gloves	60 pairs			1992	Trailer 9708			
Safety Glasses	70 pairs			1997	Trailer 9708			Black/Smoke
Shovels	72 units			1992	Trailer 9708			Round Ended
Shovels	71 units			1997	Trailer 9708			Square Point
Suction Manifold	1 unit				Box No. 1			a/k/a christmas tree
Tarp	7 units				Trailer 9708			Top/Tank
Tow Bridles	2 units				Trailer 9708			18" floating

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

**TABLE II-8  
MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL				400 FPL System	
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)				52,853 Bbls/Day	
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM				28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Tow Bridles	3 units				Trailer 9708			36" boom
Tow Bridles	10 units				Trailer 9708			18" boom
Tyvek Suit	100 units				Trailer 9708			Medium
Tyvek Suit	69 units				Trailer 9708			Large
Tyvek Suit	303 units				Trailer 9708			Extra Large
Visqueen	15 rolls				Trailer 9708			6mm x 20 ft x 100 ft
Water Cooler	8 units	GOTT		1997	Trailer 9708			10 gallon
<b>TOOLS</b>								
Bolt Cutter	5 units				Trailer 9708			18"
Bolt Cutter	6 units				Trailer 9708			48"
Chain Saw	1 unit				Trailer 9708			Electric
Pipe Cutter	3 units				Trailer 9708			
Pipe Reemers	2 units				Trailer 9708			
Pipe Threader	3 sets				Trailer 9708			
Pipe Vice	1 unit				Trailer 9708			
Pipe Wrench	4 units				Trailer 9708			24"
Pitch Fork	1 unit				Trailer 9708			
Sledge Hammers	3 units				Trailer 9708			

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

**TABLE II-8  
MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL					400 FPL System
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)					52,853 Bbls/Day
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM					28,800 FEET
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Wrench	4 units				Trailer 9708			
<b>WILDLIFE REHAB</b>								
Centrifuge	1	Fisher Scientific	II W/6PL	2000	OSR			Centrifuge II W/6PL Angle TRT
Hot Water Heater	1 unit	Paloma	PH-24M-DP	2000	OSR			Auto gas water heater
Pressure/Booster Pump	1 unit	Sta-Rite	HP7C-01	2000	OSR Building			1/2 HP, 115/230 Vac, 1 Phase, Cast Iron Multistage
<b>POWER</b>								
Power Pack for Foilex	1 unit	Crucial	DHP-40 HCL 1	2000	OSR Building	0-26 gpm		Skid mounted diesel/hydraulic power pack

**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

**TABLE II-8  
MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL					400 FPL System
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)					52,853 Bbls/Day
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM					28,800 FEET
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
<p>Notes:</p> <p>OSRO: Oil Spill Removal Organization.</p> <p>SWS Environmental Services is the Martin Terminal's primary OSRO. Their response time to the site is approximately 1 hour. Other certified OSROs may be called to respond to larger spills. See telephone numbers in Emergency Notification Phone List (Table II-3) of this plan for details of the name of the OSRO's that will respond in the event of an oil spill.</p> <p>The Plant uses Channel 1 on their two-way radios for operations and maintenance communication.</p> <p>Equipment and tanks are inspected periodically: informal inspections are conducted daily and formal recorded inspections are conducted monthly. The spill response equipment is monitored monthly.</p> <p>Response Equipment List and Location (see Figure II-8).</p>								



## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

### Response Equipment, Testing and Deployment

Facility response equipment is routinely inspected and tested to ensure that all equipment is operational, properly maintained, including appropriate level of inventories, is readily accessible and is immediately available in the event it is needed. Response equipment inspections are conducted during monthly preventative maintenance schedules by the primary OSRO and during equipment deployment drills. All equipment is maintained in good operating condition in accordance with manufacturer's recommendations. Any discrepancies noted during the inspection are corrected and the equipment is returned to its normal storage location. Records of equipment maintenance activities and equipment deployment drills are maintained by the site's oil spill coordinator.

TABLE II-9		
OIL SPILL LEVEL AND GROUP		
LEVEL	VOLUME	OIL GROUP
Level I (Small Case Discharge)	50 barrels (2,100 gallons)	Group III and IV
Level II (Medium Case Discharge)	857 barrels (36,000 gallons)	Group IV
Level III (Worst Case Discharge)	(b) (7)(F), (b) (3)	Group IV

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

### Evacuation Plan

(b) (7)(F), (b) (3)

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

(b) (7)(F), (b) (3)



## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

### RESPONSE ACTIONS

Securing the source is an extremely important step in spill response actions. However, a source should only be secured if it can be performed safely and poses no threat to human health. The oil spill coordinator will direct the spill response procedures. A facility piping diagram (see Figure II-17) can be used to identify appropriate valves to close. The areas of source include: the truck unloading area, pipeline, and fuel oil tanks. Steps taken to secure the source include the following:

- **Land Spills** – Make every effort to contain the spill so as to limit the affected area.
- **Transfer Equipment** – If a manifold fails, shut down upstream pumps, close upstream valves. If a hose failure is encountered shut down upstream pumps, close upstream valves and drain hose into secondary containment, if feasible.
- **Tank Overflow** – If the source of the spill is identified as a tank leaking or overflowing, shut down pump operations and close fill line valve.
- **Tank Failure** – If the source of the spill is identified as a catastrophic tank failure (i.e., collapse) and safety conditions permit, contain the oil within the secondary containment area and shut down all valves associated with the tank. If this is not possible, utilize earth-moving equipment to create temporary berms to prevent the spill from spreading.
- **Piping Rupture** – If the source originates from a pipeline (low pressure), shut down pumps, close pipeline block valves on both side of the spill, and drain blocked section of line. If the source originates from a pipeline (high pressure), shut down pumps, close pipeline block valves on both sides of the spill, construct or obtain temporary containment, and bleed pressure from the pipeline into containment.
- **Equipment Failure** – For equipment failures, upstream valves will be closed and the appropriate lines or vessels will be drained or, if pressurized, will be bled down into containment structures.
- **Explosion or Fire** – (1) Notify local fire authorities; (2) Control or disperse vapors; (3) Cool heated structures; (4) Divert/control runoff; (5) Recover product(s). Appropriately trained personnel will secure the sources of discharge by appropriate means and deploy containment and control equipment to contain the spilled material. The Oil Spill Coordinator will implement other response activities as needed.

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

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## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

TABLE II-10						
MARTIN TERMINAL PETROLEUM BULK STORAGE CONTAINERS						
TANK ID	TYPE	CONTENTS	CAPACITY	SECONDARY CONTAINMENT TYPE	SECONDARY CONTAINMENT (CAPACITY)	EQUIPMENT START UP YEAR
T1	Fuel Oil Storage Tank A	No. 6 Fuel Oil	(b) (7)(F), (b) (3)	Earthen Berm	(b) (7)(F), (b) (3)	1980
T2	Fuel Oil Storage Tank B	No. 6 Fuel Oil		Earthen Berm		1980
T3	Purge Oil Tank (Temporarily Out of Service)	No. 6 Fuel Oil		Earthen Berm		1980
T4	Mineral Oil Tank	Mineral Oil		Concrete Containment		1980
T5	Diesel Fire Pump Tank	No. 2 Diesel Fuel		Double Wall		1980
T6	Emergency Diesel Generator Sub Base Tank	No. 2 Diesel Fuel		Single Wall Inside Building		1980
T7	Boiler Pilot Tank	No. 2 Diesel Fuel		Double Wall		1980
T8	Compressor Station Condensate Tank	Hydrocarbons		Double Wall		2013
T9	Compressor Drain Vessel (Secondary Containment for Compressor Unit)	Lube Oil		Double Wall		2013

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

TABLE II-10						
MARTIN TERMINAL PETROLEUM BULK STORAGE CONTAINERS						
TANK ID	TYPE	CONTENTS	CAPACITY	SECONDARY CONTAINMENT TYPE	SECONDARY CONTAINMENT (CAPACITY)	EQUIPMENT START UP YEAR
Notes: G stands for Gallons, B stands for Barrels Locations are indicated on Figure II-6 and Figure II-6A.						

TABLE II-11						
MARTIN TERMINAL NONBULK STORAGE CONTAINERS (OIL FILLED EQUIPMENT)						
TANK ID	TYPE	CONTENTS	CAPACITY	SECONDARY CONTAINMENT TYPE	SECONDARY CONTAINMENT (CAPACITY)	EQUIPMENT START UP YEAR
X1	Pad Mount Transformer	Mineral Oil	(b) (7)(F), (b) (3)	Concrete	(b) (7)(F), (b) (3)	1980
X2	Pad Mount Transformer	Mineral Oil		Spill Response Equipment		1980
X3	Pad Mount Transformer	Mineral Oil		Spill Response Equipment		1999
X4	Cathodic Protection Rectifier	Mineral Oil		Earthen Berm		1980
X5	Cathodic Protection Rectifier	Mineral Oil		Earthen Berm		1980
X6	Transformer Compressor Station	Mineral Oil		Concrete		2013
X7	Transformer Compressor Station	Mineral Oil		Concrete		2013
X8	Unit # 1 Compressor	ISO VG 220		Covered Building; Skid		2013

## SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN

TABLE II-11						
MARTIN TERMINAL NONBULK STORAGE CONTAINERS (OIL FILLED EQUIPMENT)						
TANK ID	TYPE	CONTENTS	CAPACITY	SECONDARY CONTAINMENT TYPE	SECONDARY CONTAINMENT (CAPACITY)	EQUIPMENT START UP YEAR
X9	Unit # 2 Compressor	ISO VG 220	(b) (7)(F), (b) (3)	Covered Building; Skid	(b) (7)(F), (b) (3)	2013
X10	Unit # 3 Compressor	ISO VG 220		Covered Building; Skid		2013
X11	Unit #1 Cylinder Lubricator	ISO VG 100		Within Compressor Unit Building		2013
X12	Unit # 2 Cylinder Lubricator	ISO VG 100		Within Compressor Unit Building		2013
X13	Unit # 3 Cylinder Lubricator	ISO VG 100		Within Compressor Unit Building		2013
Notes: G stands for Gallons, B stands for Barrels Locations are indicated on Figure II-7 and Figure II-7A.						



**SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

TABLE II-12		
MARTIN TERMINAL PIPELINE VALVES		
PIPELINE	VALVE	DISTANCE (MILES)
(b) (7)(F), (b) (3)		

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

**FIGURE II-6 LOCATION OF EQUIPMENT TANKS, FUEL OIL STORAGE TANKS, AND TANK TRUCK UNLOADING AREA**

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

**FIGURE II-6A LOCATION OF EQUIPMENT TANKS, FUEL OIL STORAGE TANKS, AND TANK TRUCK UNLOADING AREA  
RBEC COMPRESSOR STATION**

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

**FIGURE II-7 LOCATION OF OIL FILLED EQUIPMENT**

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

**FIGURE II-7A LOCATION OF OIL FILLED EQUIPMENT  
RBEC COMPRESSOR STATION**

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

INSERT

FIGURE II-8 LOCATION OF OIL SPILL RESPONSE AND COMMUNICATION EQUIPMENT  
TERMINAL AND RBEC COMPRESSOR STATION

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

**FIGURE II-9 FIRE PROTECTION PLAN**

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

**FIGURE II-9A FIRE PROTECTION PLAN  
RBEC COMPRESSOR STATION**



## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

INSERT

FIGURE II-10A RIVIERA PLANT ENVIRONMENTALLY SENSITIVE AREAS

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

FIGURE II-10B IMP HIGH CONSEQUENCE AREAS BASE MAP WITH PIPELINE SEGMENTS SHOWN 30" MARTIN PIPELINE

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

FIGURE II-10C IMP HIGH CONSEQUENCE AREAS BASE MAP WITH PIPELINE SEGMENTS SHOWN 18" MARTIN PIPELINE

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

INSERT

FIGURE II-11 SITE EVACUATION PLAN MARTIN FUEL TERMINAL

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

INSERT

FIGURE II-11 SITE EVACUATION PLAN MARTIN FUEL TERMINAL RBEC COMPRESSOR STATION

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

**FIGURE II-12 SITE DRAINAGE PLAN**

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

**FIGURE II-12A SITE DRAINAGE PLAN  
RBEC COMPRESSOR STATION**

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

**FIGURE II-13 OIL SPILL DRAINAGE PATHS**



## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

**FIGURE II-13A OIL SPILL DRAINAGE PATHS  
RBEC COMPRESSOR STATION**

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

FIGURE II-14A MARTIN TERMINAL BOOMING STRATEGY MAP SITE OVERVIEW

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

FIGURE II-14B MARTIN TERMINAL BOOMING STRATEGY MAP VIEW 1

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

FIGURE II-14C MARTIN TERMINAL BOOMING STRATEGY MAP VIEW 2

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

FIGURE II-14D MARTIN TERMINAL BOOMING STRATEGY MAP VIEW 3

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

FIGURE II-14E ST. LUCIE CANAL BOOMING STRATEGY MAP

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

FIGURE II-14F ST. LUCIE CANAL BOOMING STRATEGY MAP OVERVIEW

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

FIGURE II-14G ST. LUCIE CANAL BOOMING STRATEGY MAP VIEW 1



## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

FIGURE II-14H ST. LUCIE CANAL BOOMING STRATEGY MAP VIEW 2

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

FIGURE II-14I ST. LUCIE CANAL BOOMING STRATEGY MAP VIEW 3

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

FIGURE II-14J ST. LUCIE CANAL BOOMING STRATEGY MAP VIEW 4

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

FIGURE II-15A RIVIERA PLANT COMPREHENSIVE RESPONSE DATA POSTER

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

FIGURE II-15B MARTIN TERMINAL COMPREHENSIVE RESPONSE DATA POSTER

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

**FIGURE II-16 MARTIN TERMINAL PIPELINE ROUTE**

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

Insert

FIGURE II-17 FUEL OIL VALVE AND PIPING DIAGRAM FOR DISCHARGE ISOLATION (MARTIN TERMINAL)

## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

INSERT

FIGURE II-18 FUEL OIL VALVE AND PIPING DIAGARM FOR DISCHARGE ISOLATION (RIVIERA PLANT)



## **SECTION II MARTIN TERMINAL FRP EMERGENCY RESPONSE ACTION PLAN**

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**SECTION III:****FACILITY DESCRIPTION**

---

**A. FACILITY LOCATION AND DESCRIPTION****Facility Name and Location**

The Martin Terminal is located in West Palm Beach. The Terminal is bordered by I-95 on the North and East, and borrow pit drainage canals on the West (EPB - 9) and South (EPB - 9 & 10) sides. Figure III-1 provides a map showing an overview of the site.

The latitude and longitude of the Terminal are:

(b) (7)(F), (b) (3)



The address and telephone number of the Terminal are:

Martin Terminal

2400 Port West Blvd.

West Palm Beach, Florida 33407

Phone: (561) 845-4600 (Control Room)

**Nearest Navigable Waterway**

The nearest navigable waterway to the Terminal is: the EPB-9 & 10 Canals

The distance to the nearest waterway/wetland to the Terminal is: The EPB - 9 & 10 borrow pit drainage canals that are adjacent to the Terminal.

## **Terminal Facility Layout**

The Martin Terminal currently consists of the following structures/areas:

- Control Room & Shop Building
- Storage Building
- Oil Spill Response Equipment Storage Area
- Tank Truck Unloading Area
- Oily Water Basin Separator & Pumps
- Pipeline Pumps
- Metering Equipment
- Permanent Floating Booms
- Mineral Oil Tank
- Purge Oil Tank (Temporarily Out of Service)
- Two Bulk Storage Tanks
- Natural Gas Compressor Station for the Riviera Beach Energy Center

## **Description of Facility**

The system covered by this FRP includes the Port of Palm Beach and the Martin Fuel Oil Terminal. The primary purpose of this system is to receive No. 6 fuel oil across the Port of Palm Beach docks and deliver it to the Martin Terminal via a pumping station located at the Riviera Beach Energy Center (RBEC) and an underground pipeline to the Martin Plant. No. 2 oil is also received and offloaded at the dock at the Port of Palm Beach and is transported by pipeline to the storage tank at the adjacent RBEC. The Martin Plant facility is covered under a separate FRP titled "Martin Plant Facility Response Plan." The RBEC facility is covered under a separate FRP titled "Riviera Beach Energy Center Facility Response Plan."

Unloading of fuel oil is accomplished utilizing either the two 10-inch stationary unloading arms on the north side or the two 10-inch collapsible unloading arms on the south side of slip number 3 in the Port of Palm Beach (In 2010 the collapsible unloading arms were

removed from the south pit and blind flanges installed on the connections. Information pertaining to these arms remains in the FRP in the event collapsible arms are reinstalled).

In addition to the Martin Fuel Oil Terminal, this is also the location for the Riviera Beach Energy Center Compressor Station. The primary purpose of this system is to receive natural gas from the Riviera Lateral Martin Gas Yard and deliver it to the Riviera Beach Energy Center power plant.

See Figure III-1 for site layout and location.

### **PIPELINE RESPONSE ZONE DESCRIPTION**

The pipeline from the Port of Palm Beach Pumping Station to the Martin Fuel Oil Terminal located west of Interstate 95 in Palm Beach County, Florida is a 3.25 mile, 30-inch buried pipeline. The pipeline crosses two canal systems; the C-17 Canal just east of Interstate 95 and the perimeter canal on the south side of the terminal which is connected to the C-17 Canal. Both canals are man-made canals constructed for surface water drainage.

(b) (3), (b) (7)(F)

The pipeline from the Martin Fuel Oil Terminal to the Martin Power Plant consists of approximately 36.5 miles of 18-inch buried pipeline. This pipeline segment has seven

(b) (3), (b) (7)(F). The pipeline crosses three canal systems:

- The Limestone Canal/Loxahatchee Slough at Mile Post (b) (3), (b) (7)(F)
- The C-18 Canal/Hungry Land Slough at Mile Post (b) (3), (b) (7)(F)
- The St. Lucie Canal at Mile Post (b) (3), (b) (7)(F)

The pipeline route along the easement of State Road 710 passes near areas of extensive wetland systems both north and south of the roadway. These wetland systems combine surface and near surface groundwater flow in a wetland flow system. Of particular note is the Corbett Wildlife Management Area which acts as the terminus of the Allapattah Flats and the origin of the Hungry Land Slough. The Hungry Land

Slough is partially drained by the man-made C-18 Canal. Significant wetland vegetation exists in the wetland systems; however, the canals are managed to reduce vegetation and enhance flow. The wetland systems act as feeding habitat for many water bird species. The wildlife management area and other natural tracts along the pipeline route contain many animal species.

The St. Lucie Canal is a part of the Okeechobee Waterway connecting the east and west coasts of Florida through Lake Okeechobee. In the area of the pipeline crossing along State Road 710, the canal is man-made (dredged from uplands). The canal banks are steep with little or no wetland vegetation.

Figures II-10A, II-10B and II-10C show potentially affected waterbodies within a five (5) mile radius of the pipeline; and sensitive areas along the pipeline route. Also see Figure II-16, a plan-view of the pipeline route.

### **Pipeline from Port of Palm Beach Pumping Station to Martin Terminal Storage Facility**

The 3.25-mile, 30-inch buried pipeline is epoxy coated with polyurethane foam insulation. Minimum burial depth is 3 feet from the soil surface to the top of the pipe. The pipeline is cathodically protected against corrosion. This pipeline crosses two canal systems; the C-17 canal just east of I-95 and the perimeter canal on the south side of the terminal which is a tributary of the C-17.

(b) (3), (b) (7)(F) . In the event of an emergency condition they will be closed, isolating the pipeline into short segments. The pipeline will remain in this state until the cause of the upset condition has been corrected.

### **Pipeline from Martin Terminal Storage Facility to Martin Plant Facility**

Fuel to be transferred to the Martin Plant Facility traverses approximately 36 miles of 18-inch pipeline (see Figure II-16). The buried pipeline is epoxy coated with polyurethane foam insulation. Minimum burial depth is 3 feet from the soil surface to

the top of the pipe. The pipeline is cathodically protected against corrosion. The 18-inch pipeline crosses three canal systems enroute to the Martin Plant:

- The Limestone Canal at Mile Post 4.8.
- Hungry Land Slough (C-18) at Mile Post 11.7.
- St. Lucie Canal at Mile Post 27.8.

Because this pipeline crosses navigable water, contingency planning for a worst-case discharge is required under 49 CFR 194 for the entire response zone. (b) (3), (b) (7)(F)

[REDACTED] In the event of an emergency condition, they will be remotely closed, isolating the pipeline into short segments. The pipeline will remain in this state until the cause of the upset condition has been corrected.

**Riviera Beach Energy Center** The Riviera Beach Energy Center is covered under a separate FRP titled “Riviera Beach Energy Center Facility Response Plan”.

### **Martin Plant**

The Martin Plant is covered under a separate FRP titled “Martin Plant Facility Response Plan”.

### **Sailfish Substation**

The Sailfish Substation is covered under a separate SPCC titled “Sailfish Substation SPCC”.

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FIGURE III-1 SITE LOCATION

MARTIN TERMINAL AND RBEC COMPRESSOR STATION



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**B. WATERFRONT DESCRIPTION**

The fuel oil unloading facilities are located on both sides of Slip Number 3 within the Port. Vessels containing No. 6 fuel oil will be offloaded from the north and south side berth within slip 3 while vessels containing No. 2 fuel oil will be offloaded from the south side berth within slip 3. Vessel offloading operations will occur using unloading hoses. All of these facilities are bulk headed within the port with water depths greater than 32 feet. The largest vessel that calls on the Martin Terminal is approximately 650 feet long and carries about 200,000 barrels of oil. The fuel oil is delivered to the Martin Terminal through an underground pipeline as described above.

**C. ENVIRONMENTAL CONDITIONS**

The Port of Palm Beach has a short entrance channel from the Atlantic Ocean. The two slips are located west of the turning basin in Lake Worth. Both slips and the Port area are almost completely bulk headed and have water depths of approximately 32 feet within each slip. The Riviera Plant receives cooling water from Slip 3 and discharges the cooling water east of the plant into Lake Worth.

**Tides**

Tides in the area are semidiurnal. The tide within Port of Palm Beach has a mean range of 2.6 feet. Spring tides have a range of 3.1 feet.

**Currents**

Currents vary dramatically within the Port area and within Lake Worth. Between the Lake Worth Inlet jetties, the average tidal velocity is 4 feet/second (ft/sec) for the flood tide and 6 ft/sec for the ebb tide. Further south in Lake Worth near Currey Park, the cross sectional average tidal velocity is 0.85 ft/sec on the flood tide and 1.05 ft/sec on the ebb tide. This varies greatly depending on freshwater discharges from the Earman River north of the Port and the West Palm Beach Canal south of the Port.

## **Water Depths**

Water depths in the slip and the Port area (i.e., entrance channel and turning basin) are approximately 32 feet. Water depths in the Intracoastal Waterway (ICW) are approximately 11 feet. The undredged portions of Lake Worth are approximately 3 to 6 feet in depth.

## **Shoreline**

Most of the shorelines within the Port and north and south of the Port are bulk headed; however, sections of natural shoreline and rock revetment exist. Shallow water exists directly east of the plant between the shoreline and the ICW. The shoreline around Peanut Island, the dredge spoil island within the Port area, is natural. Outside of the inlet, the shorelines are sandy beaches.

## **Structures**

There are no significant structures within the slips or port. The boat access will be provided at RBEC.

## **D. *METEOROLOGICAL CONDITIONS***

### **Winds**

A five-year annual wind rose for the Palm Beach International Airport, West Palm Beach (1982 - 1986) is presented in Figure III-2. The West Palm Beach data are the most representative wind direction and wind frequency data available for the Martin Terminal. In the figure, the length of each directional vector indicates the total percentage of time in which that wind direction occurs. The width of the vector indicates the frequency of occurrence of the wind speed class for each respective direction. The West Palm Beach wind direction frequencies are mostly dominant from the east and southeast with the predominant wind directions being east (15 percent), and southeast (10 percent).

### **Temperatures**

The temperature means (1971-2000) and extremes (1936-2003) for the Palm Beach International Airport, West Palm Beach are presented in Table III-1. The West Palm

Beach data are the most representative temperature data available for the Martin Terminal. The mean annual temperature of 75.3°F varies from a monthly high of 82.8°F in August to a monthly low of 66.2°F in January. The average diurnal maximum varies from 90.1°F in July and August to a low of 75.1° in January. The average diurnal minimum varies from a maximum of 75.4°F in August to a minimum of 57.3°F in January. The extreme maximum temperature recorded from the period 1936 through 2003 is 101°F while the minimum temperature recorded during the same period is 27°F. The temperature extremes at the site are moderated by the site's proximity to the coast.

### **Precipitation**

The monthly precipitation means (1791-2000) and extremes (1939-1991) for the Palm Beach International Airport, West Palm Beach are presented in Table III-2. The West Palm Beach data are the most representative precipitation data available for the Martin Terminal. All of the measured precipitation is in the form of rain. Peninsula Florida cities display a distinctive wet and dry season. The wet season at the site begins in May and ends in October. Precipitation during the wet season is usually 60 to 70 percent in the form of short-lived thunderstorms. The normal monthly precipitation for the terminal site varies from a peak of 24.86 inches in September to minimum of 8.71 inches in February. The annual mean precipitation is 61.39 inches. The maximum monthly and daily rainfall amounts (1939 - 1991) are 24.86 and 15.23 inches, respectively.

### **Visibility**

Occurrence of heavy fog does not occur frequently. The average number of days per month with heavy fog occurrences (visibility less than or equal to 0.25 mile) range from a maximum of 1.7 in January to 0.0 in July. The average number of heavy fog occurrences per year is 26.8 days which is presented in Table III-2.

<b>TABLE III-1</b> <b>MONTHLY MEAN AND EXTREME TEMPERATURES</b> <b>FOR THE MARTIN TERMINAL</b>					
	<b>Mean Temperatures<sup>a</sup> (°F)</b>			<b>Extreme Temperatures<sup>b</sup> (°F)</b>	
<b>Month</b>	<b>Average</b>	<b>Maximum</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Minimum</b>
January	66.2	75.1	57.3	89	27
February	67.2	76.3	58.2	90	32
March	70.6	79.2	61.9	94	30
April	73.8	82.1	65.4	99	43
May	78.2	85.9	70.5	96	51
June	81.2	88.5	73.8	98	61
July	82.5	90.1	75	101	66
August	82.8	90.1	75.4	98	65
September	81.7	88.7	74.7	97	66
October	78.1	85	71.2	95	46
November	73.1	80.4	65.8	91	36
December	68.3	76.4	60.1	90	28
<b>Annual</b>	<b>75.3</b>	<b>83.2</b>	<b>67.4</b>	<b>101</b>	<b>27</b>
a: Palm Beach International Airport, FL 1971-2000 b: Palm Beach International Airport, FL 1936-2003					

TABLE III-2 MONTHLY PRECIPITATION AND VISIBILITY FOR THE MARTIN TERMINAL				
	Precipitation (inches)			Number of Days with Visibility ≤ ¼ Mile <sup>c</sup>
Month	Mean <sup>a</sup>	Extreme <sup>b</sup>		
		Monthly	Daily	
January	3.75	11.01	6.36	1.7
February	2.55	8.71	4.7	1.1
March	3.68	16.78	8.8	1.0
April	3.57	18.26	15.23	0.9
May	5.39	15.22	7.04	0.2
June	7.58	17.91	9.21	0.1
July	5.97	17.74	5.83	0
August	6.65	13.52	6.72	0.1
September	8.1	24.86	8.71	0.2
October	5.46	18.74	9.58	0.4
November	5.55	14.63	7.67	0.6
December	3.14	10.1	5.26	1.2
Annual	61.39	24.86	15.23	7.5
a: Palm Beach International Airport, FL 1971-2000 b: Palm Beach International Airport, FL 1939-1991 c: Palm Beach International Airport, FL 1945-1991				

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**FIGURE III-2 WIND ROSE**



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**SECTION IV:****NOTIFICATION / ACTIVATION PROCEDURES**

---

**A. INTERNAL NOTIFICATIONS**

Depending on the size of the incident, the OSC/QI or alternate from the Martin Terminal will activate the Onsite Response Team (ORT) and notify the appropriate additional response resources listed in Table II-7. For any incident, the OSC/QI will notify a Corporate Response Team designee, the Juno Environmental Services Department representative, and the Power Generation Environmental representative. The Corporate response team (CRT) will be activated by the OSC/QI any time deemed necessary, irrespective of the level of incident. The OSC/QI will also complete the Spill Response Notification Form (Figure IV-1).

**B. EXTERNAL NOTIFICATIONS**

FPL has developed an external notification procedure to ensure that the Company will make and complete all required government agency notifications in a timely fashion. In the event of a spill, the **OSC/QI** or **Alternate OSC/QI** will immediately complete the Spill Response Notification Form (Figure IV-1), consult the Emergency Notification List in Table II-6, and make the required notifications.

Follow-up notifications will be provided to the appropriate agencies as incident information becomes available. Additional follow-up reports will be provided as deemed appropriate or as requested by agency personnel.



FIGURE IV-1 SPILL RESPONSE NOTIFICATION FORM			
			
<b>MARTIN TERMINAL</b>			
<b>REPORTING PARTY INFORMATION</b>			
<b>INITIAL NOTIFICATION TO NRC MUST NOT BE DELAYED</b> <b>PENDING COLLECTION OF ALL INFORMATION</b>			
REPORTER'S LAST NAME: _____ FIRST: _____ M.I.: _____			
PHONE NUMBERS: DAY: _____ EVENING: _____ MOBILE: _____			
COMPANY: <u>Florida Power and Light Company</u>			
ORGANIZATION TYPE: <u>Electric Company</u>			
YOUR POSITION: _____			
ADDRESS: <u>2400 PORT WEST BLVD.</u>			
CITY: <u>WEST PALM BEACH</u> STATE: <u>FL</u> ZIP: <u>33407</u>			
WERE MATERIALS DISCHARGED? (Y/N): _____ CONFIDENTIAL (Y/N) _____			
MEETING FEDERAL OBLIGATIONS TO REPORT? (Y/N): _____ DATE CALLED: _____			
CALLING FOR RESPONSIBLE PARTY? (Y/N): _____ TIME CALLED: _____			
<b>INCIDENT DESCRIPTION</b>			
SOURCE AND/OR CAUSE OF INCIDENT: _____			
DATE: _____ TIME OF INCIDENT: _____ AM/PM			
INCIDENT ADDRESS/LOCATION: _____			
NEAREST CITY: <u>WEST PALM BEACH</u> STATE: <u>FL</u> COUNTY: <u>MARTIN</u> ZIP: <u>33407</u>			
DISTANCE FROM CITY: _____ UNITS: <u>MILES</u> DIRECTION FROM CITY: _____			
SECTION: _____ TOWNSHIP: _____ RANGE: _____			
CONTAINER TYPE: _____ TANK CAPACITY: _____ UNITS: _____			
FACILITY CAPACITY: <u>(b) (7)(F),</u> UNITS: <u>GALLONS</u>			
FACILITY LATITUDE: <u>(b) (7)(F), (b) (3)</u>			
FACILITY LONGITUDE: _____			

FIGURE IV-1 SPILL RESPONSE NOTIFICATION FORM



SPILL RESPONSE NOTIFICATION FORM				
Material Released	Quantity Released	Unit of Measure	Material Released in Water	Unit of Quantity
RESPONSE ACTION				
Actions Taken to Correct, Control or Mitigate Incident				
IMPACT				
Number of Injuries _____ Number of Fatalities _____				
Were there Evacuations? _____ (Y/N) Number of Evacuations _____				
Was there any Damage? _____ (Y/N) Damage Estimate in Dollars (approx.) _____				
Medium Affected _____				
Description _____				
More Information about Medium _____				
Any information about the incident not recorded elsewhere in the report: _____				
ATMOSPHERIC AND WATER CONDITIONS				
ATMOSPHERIC			WATER	
Wind Speed: _____ mph			State of Tide: _____	
Wind Direction From: _____			Current Speed: _____ knots	
Air Temperature: _____ °F			Current Direction From: _____	
Visibility: _____ miles			Wave Height: _____ feet	
Precipitation: _____			Water Temperature: _____ °F	

FIGURE IV-1 SPILL RESPONSE NOTIFICATION FORM			
			
MARTIN TERMINAL			
CALLER NOTIFICATIONS			
	Yes/No	Who	Time/Date
NATIONAL RESPONSE CENTER (NRC) (800) 424-8802			
US COAST GUARD SECTOR MIAMI			
FDEP			
STATE WARNING POINT			
PRIMARY OSRO (SWS ENVIRONMENTAL)			
CRT (CORPORATE RESPONSE TEAM)			
FPDC (FLEET PERFORMANCE & DIAGNOSTICS CENTER)			
MARTIN COUNTY			
AREA EXTERNAL AFFAIRS REPRESENTATIVE			
MARKETING & COMMUNICATIONS			
OTHERS			
<div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div>On-Scene Commander</div> <div>Date</div> </div>			

**SECTION V:****EMERGENCY RESPONSE ORGANIZATION****A. TIERED RESPONSE**

Response resources that will be available to respond to oil spill incidents at the **MARTIN TERMINAL** have been organized to reflect three levels of incidents: Level I (small), Level II or (medium), and Level III (worst case). For the purposes of this Manual, the three levels of incidents are defined as follows (Note: discharge calculations are provided in Appendix H):

**Pursuant to 40 CFR 112 and/or 33 CFR 154 for the MARTIN TERMINAL:**

**Level I** – A Level I, or “small,” incident is defined as the Average Most Probable Discharge (AMPD) of the lesser of 50 barrels or 1 percent of the volume of the worst case discharge. **A Level I, or "small", discharge at the Martin Terminal would be 2,100 gallons (50 barrels) of No. 6 fuel oil.** (Pursuant to 33 CFR 154)

**Level II** – A Level II, or “medium,” incident at is defined as the Maximum Most Probable Discharge (MMPD) of the lesser of 36,000 gallons or 10 percent of the volume of the worst case discharge at the facility. **The Level II, or “medium”, discharge that may occur at the Martin Terminal is 36,000 gallons (857 barrels) of No. 6 fuel oil.** (Pursuant to 33 CFR 154)

**Level III** – A Level III, or "worst case discharge", incident is defined as 100 percent of the volume of the largest tank within secondary containment at the facility. **The Level III, or "worst case discharge", that may occur** (b) (7)(F), (b) (3) . (Pursuant to 40 CFR 112)

(See Appendix H; Worst Case Discharge Worksheet – No.6 Fuel Oil Storage Tank(s) at the Martin Fuel Terminal – Appendix D to 40 CFR 112)

**However, Pursuant to DOT 49 CFR 194.105(b)(4),** (b) (7)(F), (b) (3)

(See Appendix H; Worst Case Discharge Calculations – Martin Terminal Breakout Tank(s) – 49 CFR 194.105)

Response resources that will be available to respond to oil spill incidents at the **PORT OF PALM BEACH** have been organized to reflect three levels of incidents: Level I (small), Level II or (medium), and Level III (worst case). For the purposes of this Manual, the three levels of incidents are defined as follows (Note: discharge calculations are provided in Appendix H):

**Pursuant to 33 CFR 154 and/or 40 CFR 112 for the PORT OF PALM BEACH:**

Level I – A Level I, or “small”, incident is defined as the Average Most Probable Discharge (AMPD) of the lesser of 50 barrels or 1 percent of the volume of the worst case discharge. A Level I, or “small”, discharge at the Port of Palm Beach is (b) (3), (b) (7)(F) of No. 6 fuel oil. (Pursuant to 33 CFR 154)

Level II – A Level II, or “medium,” incident is defined as the Maximum Most Probable Discharge (MMPD) of the lesser of 36,000 gallons or 10 percent of the volume of the worst case discharge. The Level II or “medium” discharge at the Port of Palm Beach (b) (3), (b) (7)(F) of No. 6 fuel oil. (Pursuant to 33 CFR 154)

Level III – A Level III, or “worst case discharge”, incident is defined as 100 percent of the volume from all piping carrying oil between the marine transfer manifold and the non-transportation-related portion of the facility. (b) (7)(F), (b) (3) oil. (Pursuant to 33 CFR 154; 40 CFR 112 Appendix E)

**Pursuant to 49 CFR 194 and/or 33 CFR 154 for the transportation-related and non-transportation-related pipelines identified:**

The 30” pipeline between the Port of Palm Beach and Martin Terminal is divided into sections by (b) (3), (b) (7)(F) along the pipeline. The 18” pipeline between the Martin Terminal and Martin Plant is divided into sections by (b) (3), (b) (7)(F) at strategic locations along the pipeline (i.e., on each side of over the water crossings). Each over the water pipeline section could contain up to approximately 500 barrels of oil. The worst case discharge from these Department of Transportation regulated pipelines would most likely result from a corrosion related failure which would be detected by pressure

loss or by a metering difference in the pipelines. The gate valves located along the pipelines would be either locally or (b) (3), (b) (7)(F) gate the release; however, a significant amount of oil could be discharge prior to the closure of the valves.

(b) (7)(F), (b) (3)



#### ***B. EMERGENCY RESPONSE ORGANIZATION***

FPL has developed an Incident Command System (ICS) compatible Emergency Response Organization. The ICS approach has been adopted because it provides a structure that is:

- Designed to ensure that FPL would be capable of performing the functions necessary to respond to an incident in an automatic, immediate, comprehensive, and coordinated fashion
- Modular in nature so that it can be activated and deactivated according to need
- Hierarchical in nature so that there is a clear chain of command.
- Matrix in nature to enhance communications



- Designed to recognize and address the demands of the "external" world without diminishing "internal" emergency response management capabilities
- Flexible

FPL has established an Emergency Response Organization to address the three levels of incidents described in Part A of this Section. The Organization consists of two independent but interrelated teams, the ORT and the CRT.

### **C. *ONSITE RESPONSE TEAM (ORT)***

The Martin Terminal has its own small ORT (see Table II-7). Each ORT comprises a limited number of facility personnel who are trained and prepared to respond to Level I (small) incidents, and to initiate response operations for Level II and Level III (medium to worst case) incidents. The ORT has access to FPL's Corporate Response Equipment and Contractor response resources. With these resources, an ORT is capable of handling the vast majority of a facility's incidents, which are minor in nature (i.e., Level I incidents).

The primary responsibilities of an ORT are to:

- Ensure that tactical response operations are carried out in a safe, well-organized, and effective fashion.
- Size up the incident and its potential in order to identify the problem(s) to be addressed by the ORT.
- Develop solution(s) to the problem(s).
- Break up the work to be done to affect the solution(s) down into manageable task(s).
- Secure and assign necessary tactical response resources, including equipment and/or personnel from the contracted OSRO.
- Continuously assess the incident to determine the adequacy of tactical response operations and the need for assistance from the CRT.
- Interact, as appropriate, with CRT.

Each ORT is led by an On-Scene Commander (OSC) who would also serve as the Qualified Individual (QI) and who operates out of a Field Command Post (FCP) located at or near the incident scene (note: an FCP is normally a truck or an open-air area where the OSC/QI positions him/herself to direct at-the-scene tactical response

operations). By necessity, the balance of the ORT organization is flexible in nature so that it can be adjusted to address incident-specific functions. In general, however, the balance of the ORT would consist of a Facility Security Officer, Operations Supervisor, On Water Unit Leader, and On Land Unit Leader. The members of the ORT would rely on this document to provide them with guidance on their duties and responsibilities. The Martin Terminal uses FPL's Corporate Response Team (CRT) along with contractors to provide response resources for each of the three levels of incidents. Contact information for the OSRO is listed in Table II-6 of the Plan.

An ORT organization chart that reflects the functions and job descriptions for each member of the ORT cited above is presented in Figure V-1. In addition, an organizational chart for the CRT are presented at the end of this section in Figure V-2.

### **Roles and Responsibilities of Onsite Response Team**

The ORT using onsite equipment, the primary OSRO equipment and the secondary OSRO's equipment (FPL's CRT equipment) would be responsible for responding to all Level I, Level II, and Level III incidents at the facility. FPL's CRT also would serve as the Spill Management Team for all Level II and Level III incidents.

The ORT is assisted by a QI who also serves as the OSC. The OSC/QI or alternate is available on a 24-hour basis, speaks fluent English, is familiar with the implementation of the response plan and is trained in his/her responsibilities. The OSC/QI has been granted full authority to implement removal actions. The OSC/QI receives a minimum of 24 hours of training in accordance with Occupational Safety and Health Administration (OSHA) requirements of 29 CFR 1910.120 and participates in the drill and exercise program in accordance with federal and state regulations as required under OSHA. The OSC/QI(s) have full written authority to perform the following duties:

- Activate internal alarms and hazard communication systems to notify all facility personnel;

- Notify and provide the necessary information to the appropriate federal, state, and local authorities including the National Response Center (NRC), State Emergency Response Commission (SERC), and the Local Emergency Planning Committee (LEPC);
- Activate and engage in contracting with oil spill removal organizations;
- Establish immediate contact with the Federal On-Scene Commander (FOSC);
- Act as liaison with the FOSC;
- Obligate, either directly or through prearranged contracts, funds necessary to carry out required or directed response activities;
- Assess the possible hazards to human health and the environment due to the release and implement prompt removal actions to contain and remove the substance(s) released; and
- Direct cleanup activities until properly relieved of this responsibility.

The roles and responsibilities for the members of the ORT are presented at the end of this section. The members of the ORT are as follows:

- OSC/QI
- Site Safety Officer
- Operations Supervisor (Oil Spill Coordinator)
- On Water Unit Leader
- On Land Unit Leader

During Level II or III incidents, the OSC/QI would notify the Fuel Infrastructure section of Power Generation through the FPDC to activate the CRT for assistance. When activated, the OSC/QI and all or a portion of the CRT would report to a Command Post which would be established at or near the Martin Terminal. The OSC/QI would support the efforts of the ORT and local contractors, facilitate the acquisition of additional response resources, engage in a planning process that would generate a comprehensive plan to guide response operations and daily work plans to implement the comprehensive plan, and manage response operations to their successful conclusion.

#### ***D. CORPORATE RESPONSE TEAM (CRT)***

The CRT is operations-oriented. It has little, if any, capacity to deal with incidents that:

- Include injuries or deaths and attendant Human Resources issues and concerns.
- Disrupt normal operations over an extended period of time.
- Generate active interest at the Corporate level within government agencies, and among the public.
- Involve legal and/or regulatory issues.
- Require the acquisition of response resources beyond those available at or in the vicinity of the affected facility.
- Place unusual demands on communications/IT equipment.
- Necessitate repetitive short and/or long term planning.
- Create social, environmental, and/or economic impacts that must be assessed and remediated.
- Result in complex financial and risk management transactions.

Incidents that take on any or all of the dimensions cited above will trigger the activation of all or a portion of FPL's CRT. The CRT consists of Company personnel drawn from FPL.

The CRT is led by an Incident Commander (OSC/QI) who operates out of an Incident Command Post (ICP) that normally is set up at a location away from the FCP. When the CRT is activated, the CRT is initially assimilated into, and becomes the part of the Operations Section of, the CRT. Level II and III incidents will require the activation of the CRT. During long-term events, CRT members will be replaced by other CRT members.

The CRT is organized to carry out the following major functions: Command, Operations, Planning, Environmental, Logistics, and Finance. The Command function is strategic in nature (note: at-the-scene commander remains with the CRT OSC/QI). It generates Strategic Objectives, determines response priorities, ensures that response operations are carried out in a safe fashion, interacts with Company management, government agencies and the public, and handles legal matters. The

members of the CRT would rely on this document and the Corporate Response Plan to provide them with guidance on their roles and responsibilities.

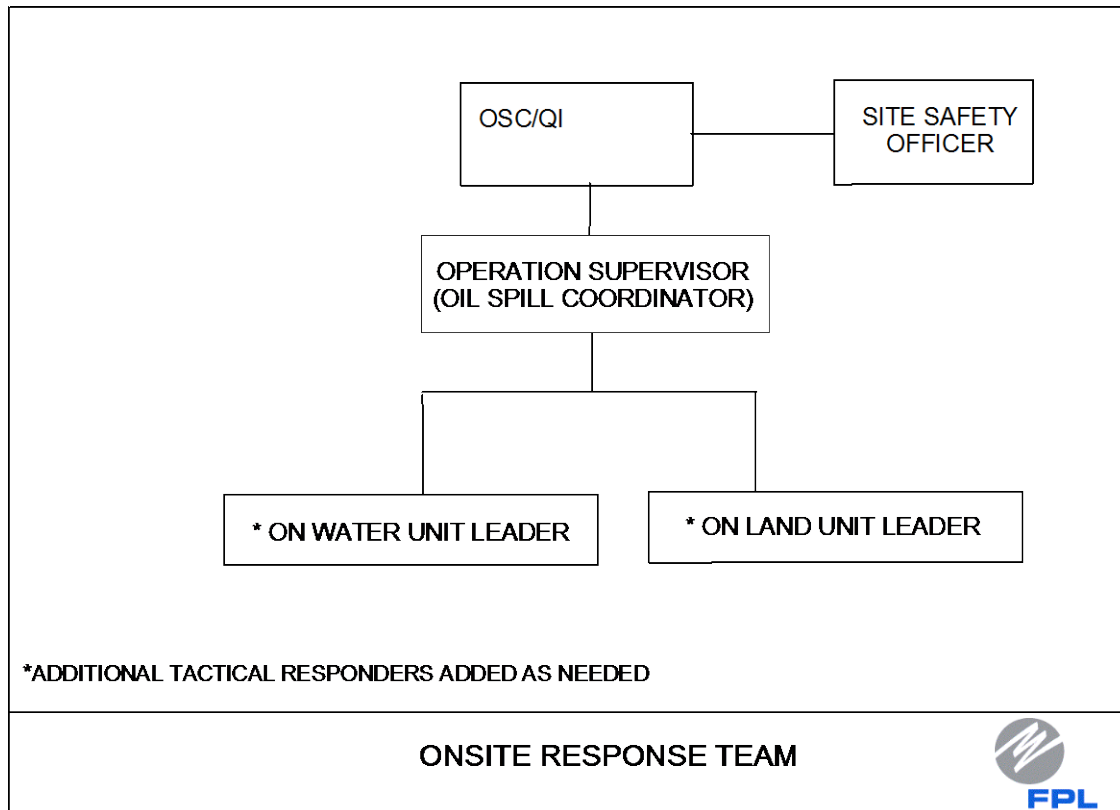
A CRT organization chart that depicts the relationship between the CRT, ORT, and federal, state, and local authorities is presented in Figure V-2. A roster of the Martin Terminal ORT is provided in Table II-7.

During a Level III or WCD incident, the CRT may have to be expanded to include the additional functions depicted in Figure V-2. The primary OSRO will provide personnel and equipment to meet worst case discharge requirements. However, FPL is the secondary OSRO and has access to significant quantities of internal response resources that are capable of meeting current WCD planning requirements. The Corporate Plan contains a list of FPL's response equipment and identifies additional contractor equipment and resources available to respond to a WCD incident.

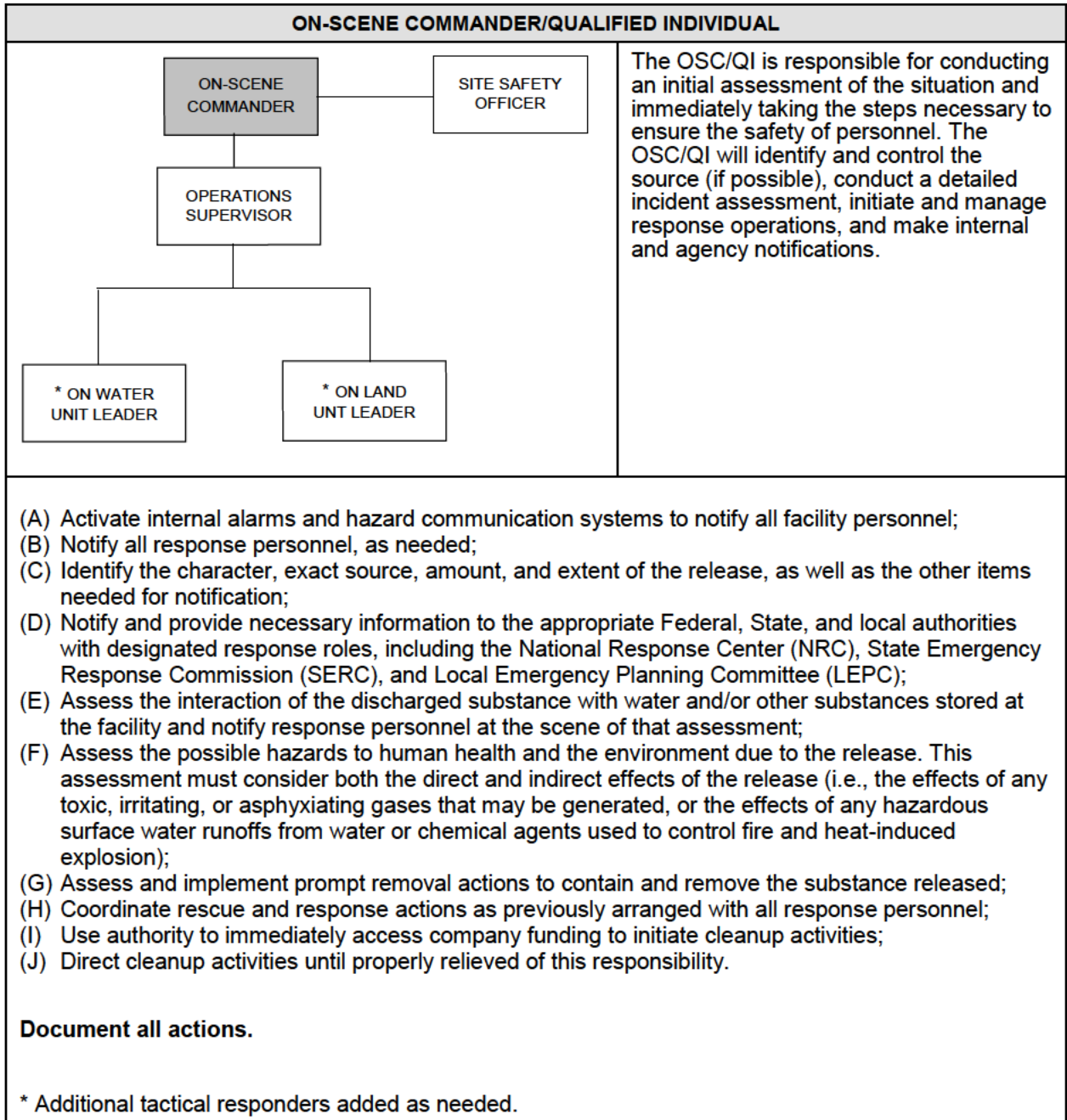
## **Training**

The OSC/QI has demonstrated knowledge of the requirements listed by the DOT, EPA, and USCG. The OSC/QI has 24 hours of On-Scene Commander training, proven experience in specific competencies, and annual refresher training. Annually the onsite response personnel complete the eight hour refresher training and specific members have proven experience in specific competencies.

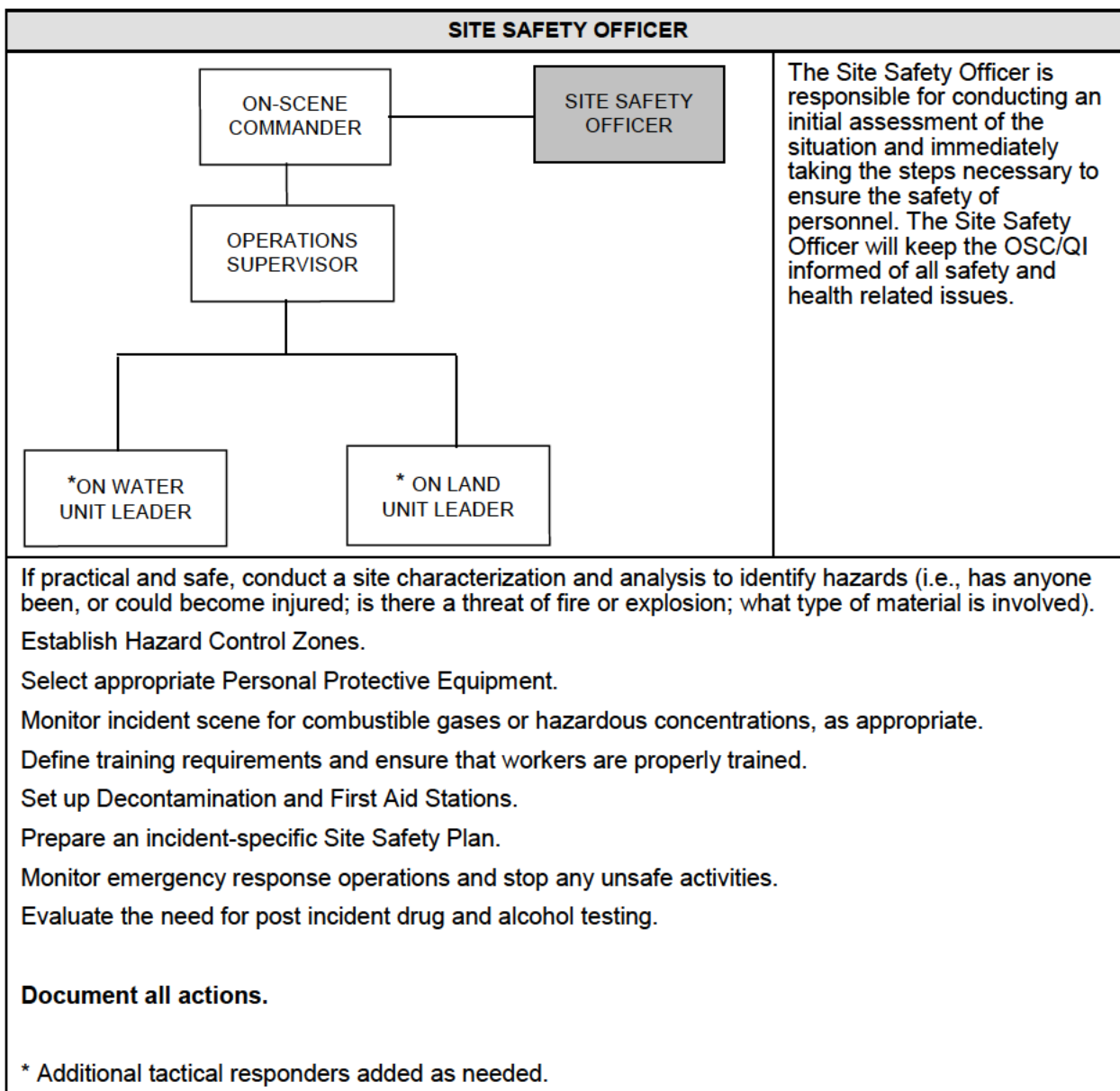
FIGURE V-1 MARTIN TERMINAL ONSITE RESPONSE TEAM (ORT) ORGANIZATION CHART



**FIGURE V-1 MARTIN TERMINAL ONSITE RESPONSE TEAM (ORT) ORGANIZATION CHART  
(CONTINUED)**

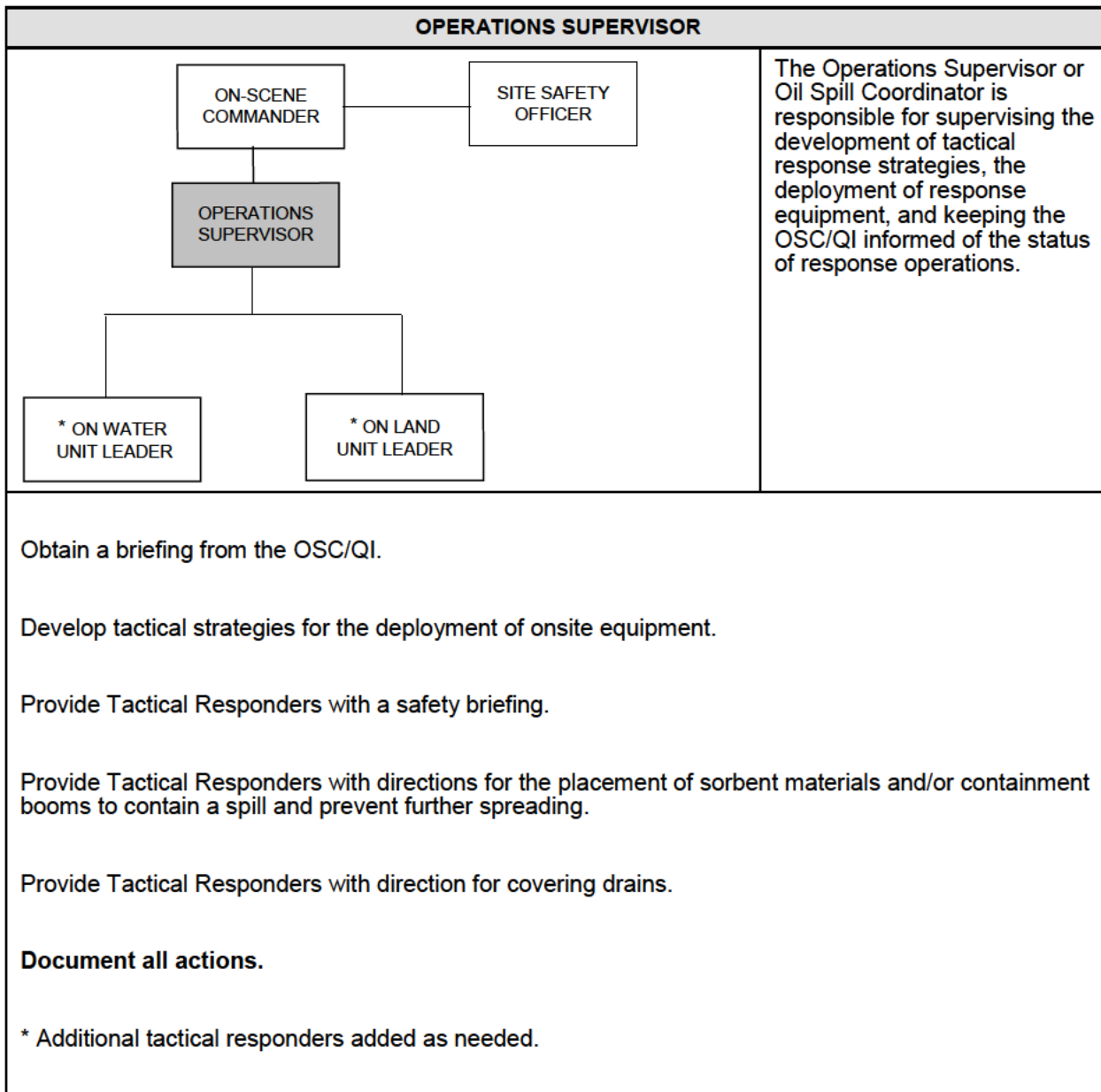


**FIGURE V-1 MARTIN TERMINAL ONSITE RESPONSE TEAM (ORT) ORGANIZATION CHART  
(CONTINUED)**

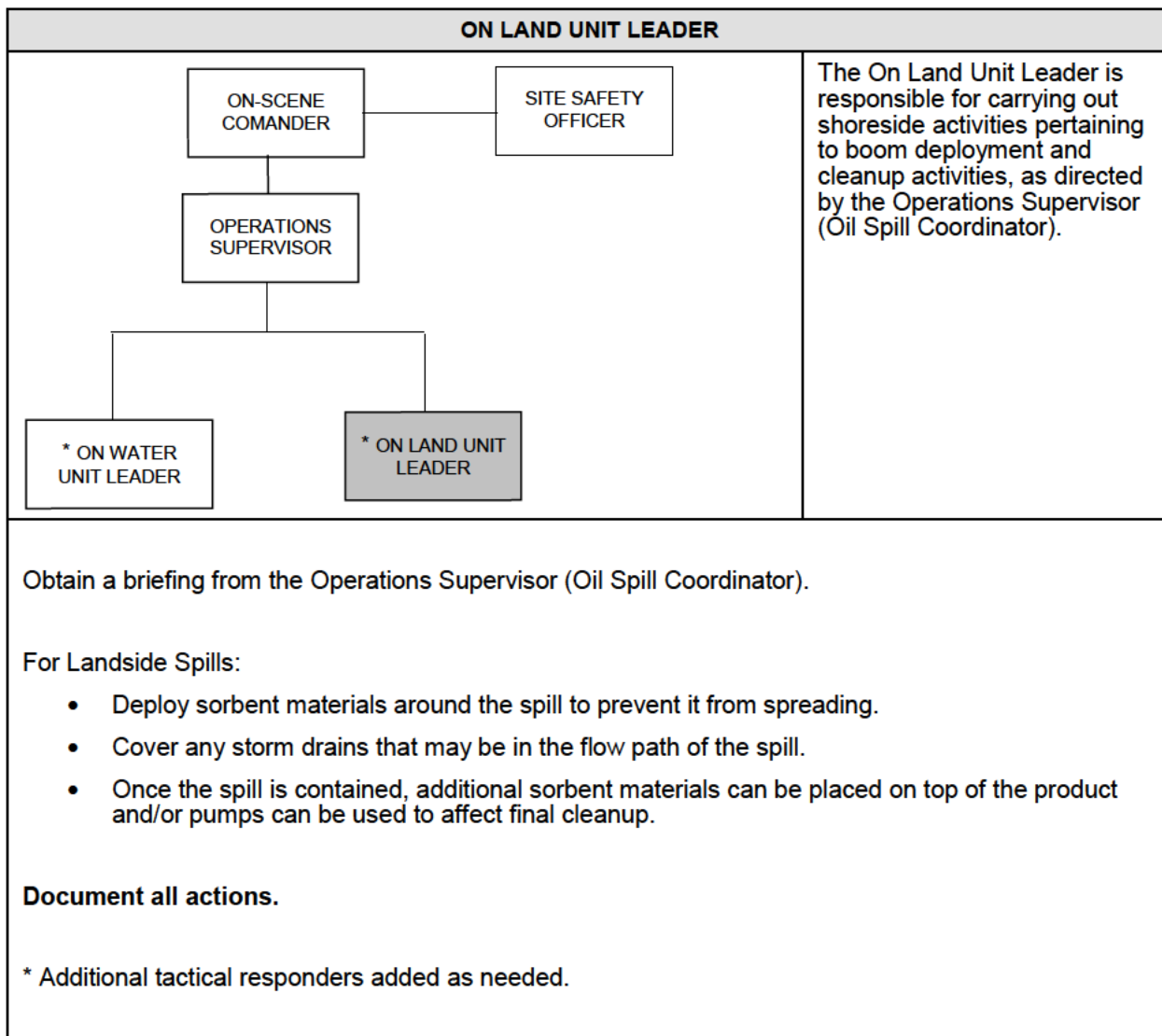




**FIGURE V-1 MARTIN TERMINAL ONSITE RESPONSE TEAM (ORT) ORGANIZATION CHART  
(CONTINUED)**



**FIGURE V-1 MARTIN TERMINAL ONSITE RESPONSE TEAM (ORT) ORGANIZATION CHART  
(CONTINUED)**



**FIGURE V-1 MARTIN TERMINAL ONSITE RESPONSE TEAM (ORT) ORGANIZATION CHART (CONTINUED)**

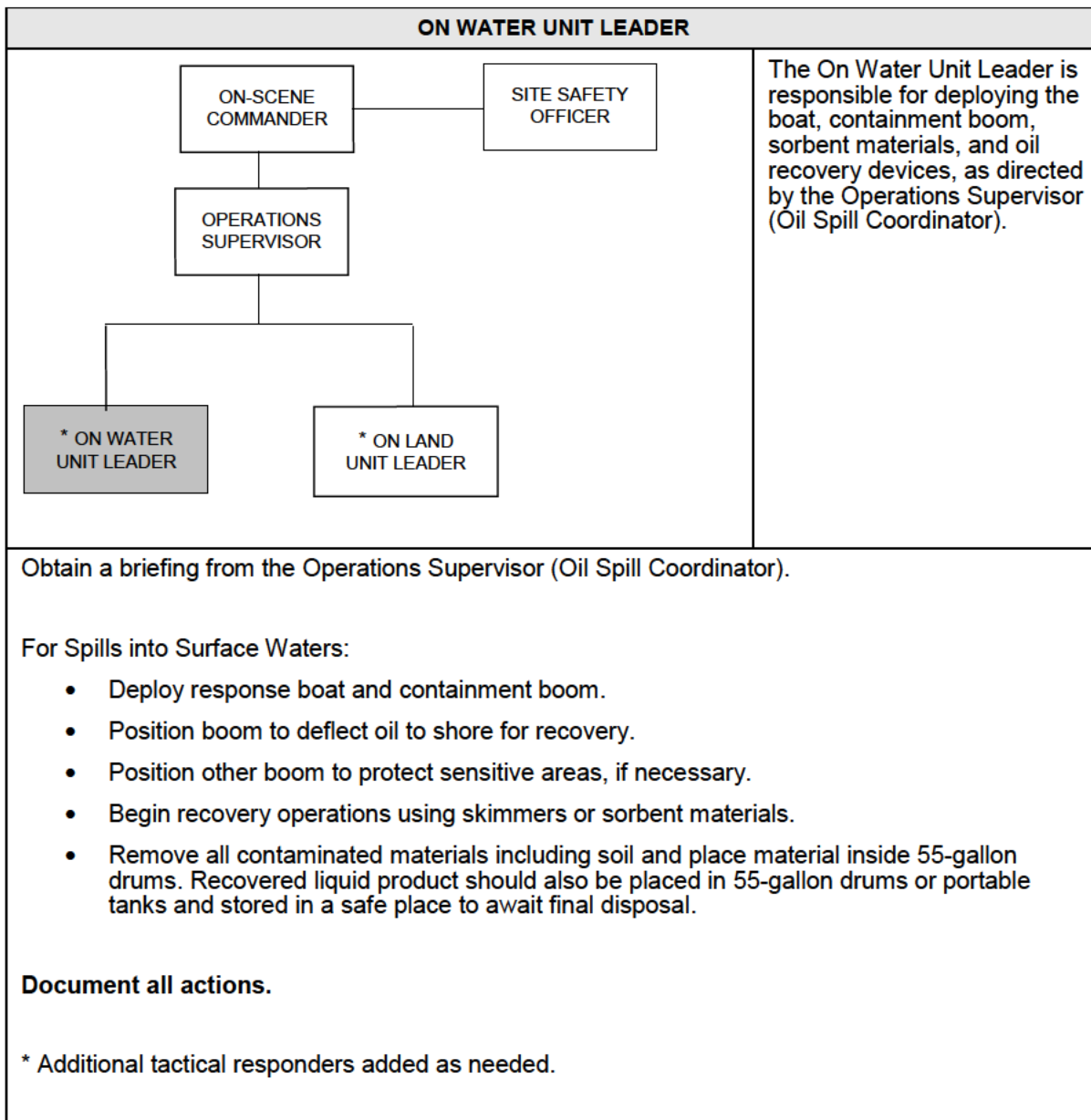
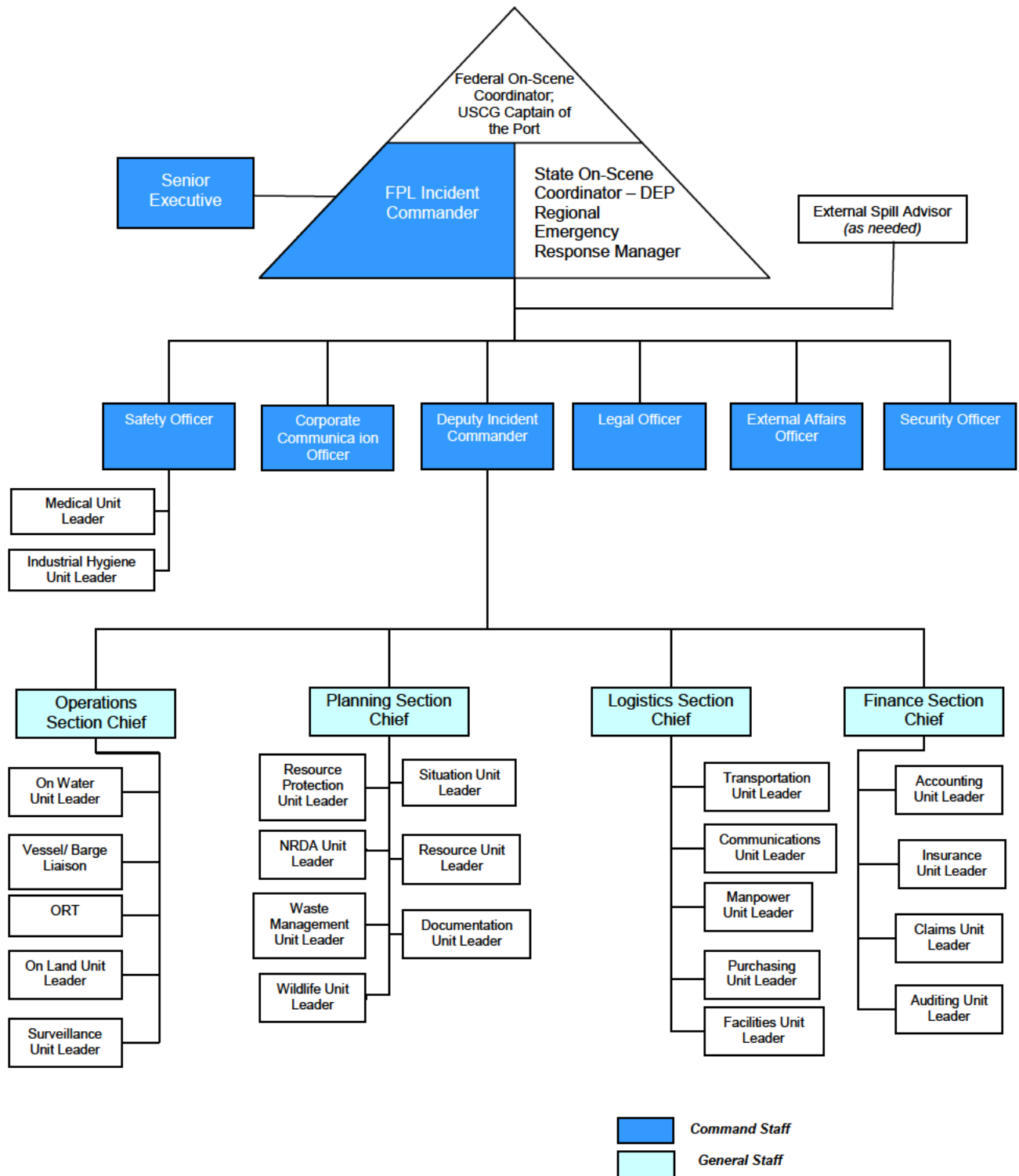


FIGURE V-2 FPL CORPORATE RESPONSE TEAM (CRT) ORG CHART



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**SECTION VI:****DISCHARGE RESPONSE ACTIVITIES**

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**A. INCIDENT ASSESSMENT**

At the outset of an incident, the **Spill Observer** would perform an immediate assessment of the situation and take steps to ensure the safety of his/her co-workers, and, if possible, to identify and secure the source. As quickly as possible, the **Spill Observer** would assume the role of, or notify the **OSC/QI**. Upon arrival at the spill scene, the **OSC/QI** would receive an initial briefing from the **Spill Observer**, activate the ORT, perform a Site Characterization and Analysis, and initiate response operations.

As soon as possible, the **OSC/QI** would perform a more detailed assessment of the situation to determine as much information as possible. Tables VI-1 through VI-3 present checklists to collect information that would assist in assessing the situation and in conducting initial and secondary response actions. Upon completion of this assessment, the **OSC/QI** would classify the spill and make the appropriate notifications.

While the importance of responding rapidly to an oil spill incident is a recognized priority within FPL, personnel safety would always be accorded the highest priority during response operations. To ensure personnel safety, the following guidelines would be observed:

- Deployment of equipment would not be attempted prior to conducting a Site Characterization and Analysis.
- Deployment of equipment would not be initiated until all personnel involved in deployment operations are wearing the required protective clothing.
- Containment operations would be suspended or terminated when unsafe operating conditions arise.

The **OSC/QI** would, to the extent possible, identify all hazardous substances or conditions present at the site before committing manpower to onsite response operations. Hazardous substances present (types, location, and amounts) would be identified, and response personnel would be briefed on their type, amount, and

location. A more detailed discussion of onsite safety is provided in Appendix E. This Appendix also includes the appropriate Material Safety Data Sheets (MSDS).

## ***B. RESPONSE STRATEGY***

The Martin Terminal and associated pipelines onsite response strategy involves using onsite personnel and the utilization of OSRO equipment and personnel to contain and clean up Level I (small), Level II (medium) and Level III (worst case) spills. Section II of the Plan lists the contact information for the OSRO. In the event of a Level II or Level III spill, the focus of initial response operations would be geared toward controlling the source of the spill and limiting the spread of the spill. Although the OSRO has the capability of responding to Level I, Level II, and Level III spills, Section II of this Plan also lists additional oil spill response contractors who can be called should it become necessary to enhance response operations.

In the event of a Level I or II spill, the **OSC/QI** can use the decision trees (Figures II-2, II-3, and II-4) to aid in determining the appropriate spill response actions. These decision trees provide basic spill response guidance depending on spill location and whether or not preventive countermeasures have contained the oil from being released to pervious surfaces or surface waters. For guidance on what immediate actions to take, use Table VI-1 “**IMMEDIATE ACTIONS CHECKLIST**” on the following page.

TABLE VI-1 IMMEDIATE ACTIONS CHECKLIST		
INITIAL RESPONSE ACTIONS ON-SITE RESPONSE TEAM	DATE/TIME ACTION TAKEN	PERSON TAKING ACTION
<b>SPILL OBSERVER/FIRST RESPONDER</b>		
1. <b>Make an Immediate Assessment of the Incident</b> & take actions to protect life, and ensure safety of personnel. Determine: <ul style="list-style-type: none"> <li>Type &amp; quantity of material spilled: _____</li> <li>Location &amp; status of material spilled: (contained/uncontained)</li> <li>Status of source: (controlled/uncontrolled)</li> <li>Status of all personnel/injuries: _____</li> </ul>		
2. <b>Stop the Discharge &amp; Shutoff Ignition Sources</b> , if safe to do so. (e.g., act quickly to secure pumps, valves, motors, open flames, etc.). If the incident is clearly the result of an operation that the Spill Observer/First Responder can control safely, take immediate steps to correct the operation.		
3. <b>Warn Personnel</b> – Alert the control room & all facility personnel at or near the incident scene and the On-Scene Commander (OSC)/QI.		
<b>ON-SCENE COMMANDER (OSC) / QUALIFIED INDIVIDUAL (QI)</b>		
4. <b>Isolate &amp; Secure the Incident Scene</b> - Account for all personnel & evacuate nonessential personnel from the area.		
5. <b>Direct Termination of Appropriate Facility Operations</b> for the safety of personnel if necessary.		
6. <b>Complete all Notifications in Table II-6</b> , as appropriate, and call for medical assistance if an injury has occurred.		
7. <b>Complete DETAILED INCIDENT ASSESSMENT FORM (Table IV-3)</b> on the following pages to understand the nature & scope of the incident. Assign safety officer to identify chemical hazards of product (MSDS) and physical hazards of incident. Monitor site conditions for changes.		
8. <b>Determine if Incident is Safe to Respond to</b> based on chemical/physical hazards of product/incident or whether evacuation or sheltering-in-place procedures should be instituted. Coordinate evacuation procedures with port security (if located within a Port) and/or the local Police Department as necessary.		
9. <b>Activate all Necessary Response Organizations</b> (i.e., Onsite Response Team; SWS Environmental (OSRO); FPL Corporate Response Team; Fire Department as necessary); <b>(Tables II-6 &amp; II-7)</b>		
10. <b>Establish Hazard Control Zones</b> (i.e., hot, warm & cold zones) as appropriate & control access to release area. Note: warm & cold zones should be located upwind (Safety Officer responsibility).		
11. <b>Define Personal Protective Equipment (PPE)</b> when responding to the incident (Safety Officer responsibility).		
12. <b>Direct Onsite Response Team</b> (if safe to do so) to put on proper PPE, contain the discharge, and protect environmentally sensitive areas. This may include berming ahead of spill or deployment of containment and/or absorbent boom. <b>(use Figures II-6 through II-18 within Section II to aid in establishing a detailed plan)</b>		
13. <b>Initiate Spill Tracking &amp; Surveillance Operations</b> for surface water spills as necessary. Determine location and extent of spill using boats, vehicles, or surveillance aircraft (conducted by CRT). Estimate volume of spill (See spill volume estimation discussion below).		
14. <b>Establish Incident Command Post</b> (see Table VI-2)		



After the above initial response actions have been completed; establish or verify that the following secondary response actions have been taken to assist the response organization in gaining control of the incident.

<b>TABLE VI-2</b>	
<b>SECONDARY RESPONSE ACTIONS ONSITE/CORPORATE RESPONSE TEAM(S)</b>	<b>COMPLETE (YES/NO)</b>
<b>ESTABLISH SITE CONTROL</b>	
Designate On-Scene Commander	
Establish Incident Command Post	
Isolate and Secure the Incident Scene	
Initiate Personnel Protective Actions (e.g., evacuations, shelter-in-place)	
Establish Personnel Accountability System	
Establish an Isolation Zone Marked by a Clearly Defined Isolation Perimeter that is a Safe Distance Around the Incident Scene	
Establish staging area(s)	
Institute a Resource Check-in Procedure to Track Resource Arrivals	
<b>ESTABLISH SITE SAFETY</b>	
Designate Site Safety Officer	
Characterized Chemical, Physical, and Operational Hazards	
Established Hazard Control Zones (Hot, Warm & Cold Zones)	
Identify PPE Requirements	
Set up Decontamination Stations	
Set up First Aid Stations	
Ensure that Emergency Medical Procedures & Response Capabilities are in Place to Handle Injuries	
Conduct Pre-entry Briefing for all Tactical Responders	
Continuously Monitor Site for Changes in Hazards	
Develop Site Specific Safety & Health Plan	
<b>ESTABLISH SITE MANAGEMENT</b>	
Conduct Detailed Incident Assessment to Determine Incident Potential	
Develop Strategic Objectives (What the Response Organization is trying to Achieve)	
Develop Tactical Objectives (How will Response Organization Achieve the Strategic Objectives)	
Break Down Tactical Objectives into Manageable Tasks	
Assign Resources to Tasks	
Monitor Operations	
<b>ESTABLISH COMMUNICATIONS</b>	
Establish Communication Networks as Necessary <ul style="list-style-type: none"> <li>• Tactical Net – Links OSC with Tactical Responders in the field</li> <li>• Support Net – Links Staging Area Manager(s) with Supply unit in the Logistics Section in the Incident Command Post (ICP)</li> <li>• Command Net – Links OSC with Operations Section Chief/Incident Commander in the ICP</li> </ul>	
Define Communication Protocols (i.e., when reports should be received in ICP)	
Prepare Initial Incident Briefing Form (ICS 201)	

TABLE VI-3	
DETAILED INCIDENT ASSESSMENT FORM	
GENERAL INFORMATION	
Date of Incident: _____	Time of Incident: _____
The type of product spilled: _____	
The estimated amount of product spilled: _____	
Source of spill: _____	
Status of source: Controlled: _____ Continuing: _____ Unknown: _____	
Cause of the spill: _____	
Is the spill contained? _____	
Shoreline impacts: _____	
Status of Response operation: _____	
An initial assessment of whether the spilled oil can be contained and cleaned up with onsite equipment, or whether Level II equipment is required: _____	
SAFETY & HEALTH CONCERNS	
The status of all personnel (injuries, etc.): _____	
Identification of possible health or fire hazards: _____	
ENVIRONMENTAL IMPACTS	
Environmentally sensitive areas impacted: _____	
Wildlife impacted: _____	
ON-SCENE WEATHER & SURFACE WATER CONDITIONS	
On-scene weather conditions to include: _____	
State of tide: _____	
Current speed and direction: _____	
Wind speed and direction: _____	
Sea state in wave height and direction: _____	

### Spill Volume Estimating

Early in a spill response, estimation of spill volume is required in order to:

- Report to agencies.
- Determine liquid recovery requirements.
- Determine personnel and equipment requirements.
- Estimate disposal and interim storage requirements.

Some rapid methods to estimate spill size are:

- Transfer operations: Multiply the pumping rate by the elapsed time that the leak was in progress, plus the drainage volume of the line between the two closest valves or isolation points (volume loss = pump rate [bbls/min] x elapsed time [min] + line contents [bbl]).
- Tank overfills: Elapsed time multiplied by the pumping rate.
- Tank volumes are contained in Table II-10 and II-11 to estimate spill volumes.
  - Visual assessment of the surface area and thickness (see table below); the method may yield unreliable results because:
  - Interpretation of sheen color varies with different observers.
  - Appearance of a slick varies depending upon amount of available sunlight, sea-state, and viewing angle.
  - Different products may behave differently, depending upon their properties.

### **Estimating Spill Trajectories**

In some cases, oil spill trajectories should be estimated in order to predict direction and speed of the movement. Trajectory calculations provide an estimate of where oil slicks may impact shorelines and other sensitive areas, and also provide an estimate of the most effective location in which to mobilize spill response resources for protection, containment and recovery.

Oil spill trajectories can be estimated using vector addition or with computer programs. Hand calculations typically utilize the following assumptions:

- Oil moves at approximately the same direction and speed as the water currents, unless the winds are strong.
- Wind speed can be multiplied by 0.034 to determine the effect of winds on speed and direction of spill movement.
- The combined effects of winds and currents can be added to estimate spill movement speed and direction.

More sophisticated predictions can be obtained from computer programs. Oil spill

trajectory services can be obtained from FPL's Corporate Response Team or:

- Applied Science & Associates (401) 789-6224
- National Oceanic and Atmospheric Administration (NOAA) through the Federal On-Scene Commander (FOSC)

TABLE VI-4 OIL THICKNESS ESTIMATIONS		
OIL COLOR	APPROX. FILM THICKNESS	APPROX. QUANTITY OF OIL IN FILM
	INCHES	GALLONS/MILE
Barely Visible	0.0000015	25
Silvery	0.000003	50
Slightly colored	0.000006	100
Brightly colored	0.000012	200
Dull	0.00004	666
Dark	0.00008	1,332
Thickness of light oils: 0.0010 inches to 0.00010 inches		
Thickness of heavy oils: 0.10 inches to 0.010 inches		

## LEVEL I – OIL SPILL INCIDENT

In the event of a Level I oil spill incident, and as soon as conditions permit, sorbent materials could be deployed and dikes could be built to create temporary berms to contain the spill until the primary OSRO arrives on-scene. Response resources required by the EPA for a small discharge include deploying 1,000 feet of containment boom within one hour.

Oil recovery devices with an effective daily recovery equal to the amount of 2,100 gallons or greater must be available at the facility within 2 hours of the detection of an oil discharge. The oil storage capacity for recovered oily material must be able to sustain twice the effective daily recovery capacities from oil recovery equipment, or 4,200 gallons.

RESPONSE RESOURCES REQUIRED FOR SMALL SPILLS		
Resource	Required Amount	Available Amount
Containment Boom	1,000 feet within 1 hour	28,800 feet on site
Oil Recovery Capacity	2,100 gpd	2,219,826 gpd
Temporary Storage Capacity	4,200 gallons	> 4,200 gallons

## LEVEL II – OIL SPILL INCIDENT

A Level II or Level III oil spill would also require the use of the primary OSRO with additional resources (i.e., personnel and equipment) to be provided by the listed secondary OSRO (i.e. FPL's CRT) in Table II-6. In a Level II or Level III incident (spills that are beyond the capability of the ORT), all or some of FPL's Corporate Response Team (CRT) would be activated to respond to the emergency depending on the size and severity of the discharge. The ORT would attempt to contain the spilled oil while awaiting assistance. After arrival on-scene, FPL's CRT would serve as the Company's Spill Management Team. The CRT would be made up of personnel from either FPL Juno Beach staff and / or other FPL facilities.

Oil recovery devices identified to meet the Level II discharge volume planning (b) (7)(F), (b) (3) are capable of arriving within 12 hours to contain and collect an oil spill. (b) (7)(F), (b) (3)

The equipment is capable of operating in an inland environment and withstanding significant wave height  $\leq 3$  feet. The effective daily recovery capacity for oil recovery devices is equal to (b) (7)(F), (b) (3). Temporary storage capacity on-scene must equal twice the daily recover capacity, which is

(b) (7)(F), (b) (3) . Appendix A lists the Martin Terminal's available daily recovery capacities. Containment boom is available at the Martin Terminal in sufficient volume to provide for control and containment of the discharge and for the protection of fish, wildlife, and sensitive environments.

## **LEVEL II – OIL SPILL INCIDENT**

The worst case discharge planning volume is (b) (7)(F), (b) (3)

The resource recovery of this discharge will take into consideration the loss of oil from evaporation, natural dissipation, and the potential deposition of oil on the shoreline, as well as the potential increase in oil from emulsification. Appendix H presents the on-water recovery volume for the three tiers of mobilization. Appendix A lists the Martin Terminal's available daily recovery capacities for a WCD.

If oil from a pipeline leak spilled into the surface water canals C-17 or C-18, the perimeter canals around the terminal (EPB – 9 & 10), the Limestone canal, or the St. Lucie Canal, the spill area could be enclosed using booms, or booms could be used to divert the spill to the shoreline for cleanup.

## **Containment Booming on Water**

The primary objective of booming an oil spill is to prevent the oil from spreading and to herd the oil to a collection point where it can be recovered. If a spill is slow moving and remains at the site, a boom (primary) can be deployed to surround the oil. If oil is drifting away from the site, boom can be deployed in advance of the movement of the slick. An additional boom (secondary) may be deployed down current of any previously deployed boom to capture any oil that may spread outside of, or move under or over, the primary boom.

Level II and Level III oil spill incidents could require protection of sensitive surrounding areas. Areas to be protected would be dependent on such things as weather and water conditions at the time of the incident as well as the quantity of oil spilled. Various booming techniques could be used to contain the spilled oil and to protect the surrounding sensitive areas. These booming techniques are described below:

**Exclusion Booming** involving the use of containment and/or sorbent booms to close off and prevent oil from entering sensitive areas could be implemented. Multiple layers of boom may be required to effectively protect areas.

**Diversion Booming** entails the use of containment or sorbent boom to direct the flow of oil away from a sensitive area or toward a preferred collection point. Deployment configurations vary depending upon the strength of currents, the location of collection points, the presence and configuration of land forms, water flow patterns, the type and length of boom available, the availability of anchors, and time.

**Entrapment Booming** involving the use of containment and/or sorbent boom could be utilized to close off impacted areas containing temporarily immobilized oil, and prevent resuspended, mobile oil from moving toward unaffected sensitive areas.

**Nearshore Trapping** would involve the use of shallow draft vessels to deploy containment boom and move through thick patches of mobile oil approaching

sensitive shoreline areas. Contained oil would be held offshore until it could be recovered by skimming devices.

**Dynamic Skimming** involving the use of shallow draft skimming vessels that move through mobile oil approaching sensitive shoreline areas could be used. Lengths of boom could be deployed from or out in front of skimming vessels to concentrate oil toward recovery devices.

**Passive Collection** would involve the use of sorbent boom materials that could be deployed along beach faces, across narrow channels leading to sensitive areas, in front of vegetated, waterfront areas, or in front of or within difficult to clean spaces, (i.e., rocky areas) to both exclude oil from and capture oil as it moves through the materials, toward a sensitive area. Sorbent materials are replaced when oiled.

### **Cleanup and Recovery**

A variety of cleanup and recovery equipment and techniques are available to remove oil from the water depending upon:

- The type of oil spilled.
- The surface water conditions.
- The presence of debris.
- The degree of weathering that the oil has undergone.

Table VI-5 lists and describes recovery techniques that could be used to remove spilled oil at the Martin Terminal and surrounding areas in the event of an oil spill incident.

### **C. PROCEDURES TO GAIN FEDERAL/STATE APPROVAL TO USE ALTERNATE RESPONSE STRATEGIES (INCLUDING DISPERSANTS) – REGION 4 RRT**

Guidelines for authorizing the use of dispersants and other chemicals listed on the NCP Product Schedule are found in NCP Subpart J, Section 300.310 Phase III and Section 300.310 (b), the Region 4 Bioremediation Spill Response Plan, the Region 4 In-situ Burn Plan and in the Region 4 RRT Dispersant Use Plan. The RRT and OSC may use chemicals and other materials to restrain the spread of oil and protect



public health and welfare and the environment. Section 300.910 states that the RRT must evaluate the appropriate use of dispersants, surface collecting agents, biological methods and miscellaneous agents listed on the NCP Product Schedule. The Region 4 RRT Dispersant Use Plan and the Region 4 Bioremediation Spill Response Plan provides direction and procedures for dispersant use in the coastal zone. Pre-authorization has been given to the OSC for dispersant use decisions in Federal coastal waters.

For the inland zone, the Region 4 RRT has agreed that oil dispersants are generally not acceptable for use on water or in situations in which the use of a dispersant on a land spill is a threat to enter navigable waters of the United States.

Limited use is allowable on land spills that do not threaten surface waters. The OSC is only granted authority to use dispersants, surface washing agents, surface collecting agents, bioremediation agents or miscellaneous spill control agents without RRT concurrence, when human lives are threatened by the oil spill.

In non-life threatening situations, the OSC must obtain concurrence from EPA's representative to the RRT and, as appropriate, the RRT representatives from the State with jurisdiction over the navigable waters threatened by the release or discharge. Consultation with the natural resource trustees, Department of Commerce (DOC) and Department of Interior (DOI), is also necessary.

#### ***D. IDENTIFICATION OF ENVIRONMENTALLY SENSITIVE AREAS***

Environmentally sensitive areas are identified in Section VII.

#### ***E. PROTECTION OF ENVIRONMENTALLY SENSITIVE AREAS***

The protection of environmentally sensitive areas, including specific booming strategy techniques is discussed in detail in Section VII.

TABLE VI-5	
CLEANUP AND RECOVERY TECHNIQUES	
TECHNIQUE	DESCRIPTION
Non-oily Debris Removal	Involves the removal of un-oiled debris from beach faces before the arrival of spilled oil. The debris can be moved above the mean high water mark or collected for onsite (i.e., burning) or remote site disposal.
Oily Debris Removal	Involves the removal of small sized, oily debris by hand or with hand tools and their placement in storage containers. Large debris may be cleaned in place or reduced in size (e.g., with a hand or chain saw) for placement in storage containers.
Passive Collection	Involves the use of sorbent materials deployed to capture oil as it moves onto a shoreline area.
Manual Recovery	Involves the use of hand tools and sorbent materials to remove surface oil in lightly oiled areas, environmentally sensitive areas, and areas with poor accessibility to heavy equipment. In areas where oil forms small pools, small pumps, vacuum devices, buckets, or sorbent materials are used to remove heavier concentrations of oil.
Mechanical Recovery	Involves the use of heavy equipment (e.g., graders, bulldozers, front-end loaders, and beach cleaners) to remove oil from heavily oiled substrates (e.g., sand) areas that can support the use of wheeled or tracked equipment.
Cold Water Deluge	Involves pumping cold water through a header system deployed above the mean high water mark to suspend and wash fresh oil from an oiled surface and transport the oil to a collection point.
Cold Water Flush	Involves pumping cold water through hand held, pressure regulated sprayers to: (1) loosen fresh oil and to suspend loosened oil in a cold water deluge that transports the oil to a collection point; or (2) to herd oil on a water surface toward a collection point.
Warm Water Flush	Involves pumping warm water through hand held, pressure regulated sprayers to loosen slightly weathered oil and to suspend the loosened oil in a cold water deluge that transports the oil to a collection area.
Hot Water Flush	Involves pumping hot water through hand held, pressure regulated sprayers to loosen very weathered oil and suspend the loosened oil in a cold water deluge that transports the oil to a collection area.
Sump Collection and Recovery	Involves using booms or water spray to direct spilled oil toward natural or excavated sump where the oil will collect for removal by a recovery device.
Bioremediation	Involves using introduced or fertilizing naturally occurring oil eating bacteria on a contaminated beach to remove oil.
Natural Recovery	Involves relying on natural cleaning or degradation processes to remove oil from a contaminated area.

## F. WASTE MANAGEMENT


The transfer, storage, and disposal of wastes are important aspects of any response. Because of the complexity of waste management issues, this topic is addressed in detail in Section IX.

## **G. COMMUNICATIONS**

### **General**

Emergency communications would cover two separate functions. First, it would handle both internal and external notifications. Second, it would facilitate the management of response operations. A communications network would be established that would link the command post to all field operations as necessary. Portable communication equipment, including cellular phones and hand held radios would be distributed to key response personnel.

(b) (7)(F), (b) (3)



## **H. COMMAND POST**

Should it become necessary to establish an Incident Command Post (ICP), one will be setup within the Terminal's control room or at a local office. Additionally, the Martin Terminal's service buildings can be used, depending on the location of the incident.

## **I. SITE SECURITY**

(b) (7)(F), (b) (3)



## **J. SURVEILLANCE**

The **OSC/QI** would use trained aerial observers to determine:

- Spill location;
- Spill characteristics (slick size, thickness & quantity)
- Areas of heaviest oil concentrations;
- The direction of spill movement, if any;
- The aerial extent of the affected area;
- The position of the spill in relation to unaffected environmentally and/or economically sensitive areas;
- The location of wildlife; and
- The location of response equipment.

The **OSC/QI** may also use surveillance information to keep track of spill response resources and to place response resources in optimum positions for containment, recovery, and ecosystem protection operations depending on the size of the incident. Moreover, those conducting surveillance may take videotapes and/or photographs for documentation purposes.

Surveillance operations would be conducted from an aircraft, since it would be virtually impossible to conduct surveillance operations from the ground. However, vehicles and vessels may be used to verify the information collected from the air.

The type of aircraft used (i.e., fixed-wing or helicopter) would depend upon the distances that must be covered, the range of available aircraft, and the mission to be carried out. Fixed-wing aircraft would be faster and can cover greater ranges than helicopters. On the other hand, helicopters would have greater maneuverability which would make them superior to fixed-wing aircraft for site-specific evaluations.

The aircraft would be dedicated to surveillance operations. This does not mean that the aircraft would not be used for other operations, but it does mean that surveillance operations would always be given priority treatment.

A surveillance team would consist of the aircraft's pilot and a trained observer. Whenever possible, a surveillance team would be kept intact throughout response operations to ensure consistency and continuity in their observations.

In the event of a Level I oil spill incident at the Martin Terminal or associated pipelines, surveillance would be initiated and carried out by personnel on land or in the boom deployment boat/vessel. In the event of a Level II or Level III oil spill, surveillance operations initially would be carried out from a helicopter that would be obtained through FPL's Aviation Department. FPL also owns the following aircraft stored at Palm Beach International Airport:

- (1) Falcon 2000 jet
- (2) Cessna Citation Jets
- (2) Augusta 109 Helicopters

This equipment is located at Palm Beach International Airport, West Palm Beach and can be activated by contacting FPL aviation at (561) 640-2200.

**K. EVACUATION PLAN**

(b) (7)(F), (b) (3)





**TABLE VI-6****EVACUATION PLANS**

(b) (7)(F), (b) (3)



TABLE VI-6

## EVACUATION PLANS

(b) (7)(F), (b) (3)

**L. REPORTS AND DOCUMENTATION**

Incident documentation is a critical response function and would begin at the start and continue through completion of response operations. Documentation will be used to:

- Monitor response operations;
- Develop plans and requests for government agency approvals;
- Substantiate decisions made during response operations;
- Plot progress throughout the response effort;
- Track equipment, manpower, materials, and supplies;
- Assess claims;
- Audit expenditures; and
- Prepare a history of the response effort.



Complete and accurate documentation is essential, particularly if the spill and/or the response effort results in subsequent litigation. Documentation of the response efforts may take many forms including:

- Logbooks, meeting notes, and telephone logs;
- Forms;
- Environmental and technical data recorded during response operations;
- Aircraft logs;
- Video tapes and still photography;
- Press releases; and
- News broadcasts and published reports.

Although it is difficult to take time out during an emergency to document activities, and most notably to maintain a daily log and telephone log, it would be imperative that all FPL response personnel participate fully in the documentation process. An incident file system would be established at the start of the spill and copies of the file index would be distributed to appropriate response personnel. The files would be maintained and stored in a convenient secure location.

All documentation, including video tapes, photographs, and slides, would be handled as confidential information. Their release would have to be authorized by FPL. In addition, if outside contractors are hired to assist in documentation, it would be imperative that the contractual agreements ensure control and ownership of all documentation with FPL.

#### ***M. LEAK DETECTION***

Pipelines are regularly inspected at flange joints, expansion joints, valve glands and bodies, pipeline supports, and exposed metal surfaces as part of being in compliance with 49 CFR 195. Pipeline leak detection practices are outlined in Section 4.0 Abnormal/Emergency Procedures, of the Martin Terminal Operations and Maintenance Manual. Tank truck unloading at the terminal meets the minimum requirements and regulations of the Department of Transportation. Mineral oil and No. 2 fuel oil is unloaded by tank truck at the Martin Terminal. The tank truck unloading area is provided with secondary containment. Tank drains are checked before truck departure. Major oil pumping stations are constructed in containment areas or transfer pits.

The bulk storage tanks are equipped with (b) (3), (b) (7)(F) which sound in the control center to alert operations personnel when the level inside the tank reaches a predetermined level. Tanks A and B and the purge oil tank also have automatic shut down of the pipeline delivery valve, transfer pumps, and (b) (3), (b) (7)(F) alarm point. A monthly reliability check is conducted to ensure the system is functioning properly. (b) (3), (b) (7)(F). Shutdown on the mineral oil tank would be affected by using the radio to contact the tank truck and instructing the tank truck to stop pumping. Terminal personnel would immediately initiate valve closure to the full tank. Overflow protection is provided by means of a "pie pan" in the overflow pipe. The pie pan is tripped by an overflow event (b) (3), (b) (7)(F) valve. The fuel oil stop valve is closed turning off the pump on Tanks A and B and the purge oil tank. The pie pan trip on the mineral oil tank will sound an alarm in the control room to alert the operator to stop tank truck transfer operations. In the event of an oil spill, the **Oil Spill Coordinator** would be notified.

The three small above ground No. 2 diesel tanks are each equipped with a site gauge to determine the levels of fuel within each tank.

#### ***N. SOURCE VERIFICATION***

For Tanks A and B, source verification would be accomplished by determining which tank is involved and the characteristics of the spilled product. Tables II-10 and II-11 would be used to identify the type of petroleum product stored in each tank or piece of operating equipment at the Martin Terminal. Three types of fuel, No. 6 fuel oil, mineral oil, and No. 2 fuel oil, are stored within the tank farm. The pipeline transporting fuel oil from the Martin Fuel Oil Terminal to the storage tanks at the plant carries only No. 6 fuel oil. In general, No. 6 fuel oil is dark in color, mineral oil is light brown in color, and No. 2 fuel oil is clear to amber in color.

The quantity of oil spilled may be difficult to determine, particularly at the outset of an incident. If a discharge comes from the tank, an estimate would be developed by taking the last recorded gauge reading and subtracting it from the current gauge reading.

In the event of a spill from the pipeline, an estimate of spillage would be determined by estimating the length of time of the discharge and multiplying it by the pump rate at the time of the incident.

## **O. SOURCE CONTROL**

Securing the source is an extremely important step in spill response actions. However, a source should only be secured if it can be performed safely and poses no threat to human health. The oil spill coordinator will direct the spill response procedures. A facility piping diagram (see Figure II-17) can be used to identify appropriate valves to close. The areas of source include: truck unloading area, pipelines, and fuel oil tanks. Steps taken to secure the source include the following:

- **Land Spills** – Make every effort to contain the spill so as to limit the affected area.
- **Transfer Equipment** – If a manifold fails, shut down upstream pumps, close upstream valves. If a hose failure is encountered shut down upstream pumps, close upstream valves and drain hose into secondary containment, if feasible.
- **Tank Overflow** – If the source of the spill is identified as a tank leaking or overflowing, shut down pump operations and close fill line valve.
- **Tank Failure** – If the source of the spill is identified as a catastrophic tank failure (i.e., collapse) and safety conditions permit, contain the oil within the secondary containment area and shut down all valves associated with the tank. If this is not possible, utilize earth-moving equipment to create temporary berms to prevent the spill from spreading.
- **Piping Rupture** – If the source originates from a pipeline (low pressure), shut down pumps, close pipeline block valves on both side of the spill, and drain blocked section(s) of line. If the source originates from a pipeline (high pressure), shut down pumps, close pipeline block valves on both sides of the spill, construct or obtain temporary containment, and bleed pressure from the pipeline into containment.
- **Equipment Failure** – For equipment failures, upstream valves will be closed and the appropriate lines or vessels will be drained or, if pressurized, will be bled down into containment structures.
- **Explosion or Fire** – (1) Notify local fire authorities; (2) Control or disperse vapors; (3) Cool heated structures; (4) Divert/control runoff; (5) Recover product(s). Appropriately trained personnel will secure the sources of discharge by appropriate means and deploy containment and control equipment to contain the spilled material. The Oil Spill Coordinator will implement other response activities as needed.

## ***P. EMERGENCIES (FIRE)***

In the event of a fire, the **Terminal Operator** would be notified to shut down pumping operations, close all valves to the tank farm, immediately notify the **OSC/QI**, and proceed to fight the fire with dry chemical extinguishers. In the event of an emergency situation along the pipeline route, the **Terminal Operator** would communicate the problem and ensure that all gate valves are closed. The **OSC/QI** would immediately contact the appropriate agency representatives.

Fire protection for the facilities consists primarily of water distributed through a private system of underground yard mains that supply hydrants.

Portable, dry chemical, firefighting equipment will be made available on the dock during transfer operations.

Figure II-9 and II-9A provides a site fire protection diagram indicating the location of the site fire protection system. Appendix A contains a list of all fire extinguishers and their location at the Martin Terminal. These extinguishers are applicable for all flammable liquids and electrical fires. Instructions for use are located on the extinguishers, and in addition, terminal personnel have been instructed on the proper use of this equipment.

In an emergency situation, the OSC/QI is responsible for contacting local emergency response agencies such as the police department, fire department, hospital, and ambulance, as deemed necessary. If equipment containing oil, such as transformers, should be involved in a fire, the OSC should work closely with the fire department to control the amount of water being placed on the fire so as not to exceed the secondary containment capacity. Should the containment capacity be exceeded, then appropriate actions, such as building temporary dikes, should be taken to prevent oily water from reaching surface waters.

## ***Q. RESPONSE AND EVALUATION CRITERIA FOR GROUP V PETROLEUM OILS***

### **Background**

The facility may, at times, receive shipments of Group V petroleum oils. These cargos are covered by a specific section of Federal Regulations because of their particular

physical characteristics and behavior when spilled. Group V oil shipments to this facility will normally consist of Low API gravity oils, commonly referred to as LAPIO.

### **Properties of Group V (LAPIO) Oils**

Low API Gravity Oil (LAPIO) is defined as a heavy petroleum oil, like No. 6 fuel oil, with an API gravity of 10 or lower. Oils with an API gravity of 10 constitute the accepted “line of demarcation” between oils that float on fresh water, at 60° F, and oils that do not float in fresh water at 60° F. The API gravity range for Group V / LAPIO extends from a high value of 10 down to a low value of 0 and is a relative indicator of the product’s density and buoyancy in water. These API gravity values, 10 to 0 are roughly equivalent to the traditional Specific Gravity values of 1.0 up to 1.08, and include the lower gravity ranges for No. 6 fuel oil.

Group V / LAPIO oils have chemical and physical properties quite similar to the chemical and physical properties of conventional fuel oil. However, Group V oils also have a few distinct characteristics. Group V oils tend to be heavier and more viscous than conventional fuel oil, and this characteristic makes this product less likely to spread when spilled. LAPIO oils also exhibit higher flash points than conventional fuel oil, making them generally safer to handle from a fire hazard standpoint. Specific safety information about Group V / LAPIO oil products and their hazards can be found on the material safety data sheet (MSDS) for No. 6 fuel oil located in Appendix E. This MSDS clearly describes the normal characteristics of these products.

### **Characteristics for Spilled Group V Oils**

US Coast Guard Regulations define Group V oil as an oil having a specific gravity of 1.0 or higher. This value range is equal to an API gravity of 10 or lower. The API gravity values are a strong indicator of product density, which has a significant effect in determining how these oils will behave if spilled on water. For example, a spill of 10 API gravity oil at 60° F into 60° F fresh water should float at or just below the surface of the water because the density of the water and oil are the same. Alternatively, a 9.5 API gravity oil in the same water will tend to sink in calm water or suspend in the water column in moving water. Likewise, the lower the API gravity is below 10, the greater will be the tendency of the Group V oil to sink in 60° F fresh-water. Due to differences in

densities of these products, a spill of Group V oil onto surface water will behave in one of the following four ways:

- the spilled oil may float
- the spilled oil may sink
- the spilled oil may become neutrally buoyant (entrained), or
- the spilled oil may separate, with some sinking, floating, and/or entraining

In addition to knowing the API Gravity of the oil, personnel should be aware of the API equivalent gravity of the water into which the oil may be spilled. The API gravity is directly related to density, and is principally determined by salinity and temperature. Table VI-7 provides API gravity values for water salinity and temperature conditions that may be encountered at this facility.

Table VI-7 illustrates the relationship between salinity, temperature and API gravity. Comparing the API gravity of the oil with the expected API gravity of the water will provide an initial indication of the oil's buoyancy in water, hence its tendency to float or sink. The question arises as to how much difference there must be between the API gravity of the oil and the API gravity of the water to exhibit floating or sinking behavior. In practice, the differentiation is somewhat arbitrary, but observations in laboratory experiments indicate that a difference of 1.0 API gravities should produce a definitive behavior. In a rather simplistic sense, the relationship between API gravities of oil and water, buoyancy of the oil, and overall behavior of spilled oil can be characterized as follows:

- If the API gravity of the oil is higher than the API gravity of the water, by a value of 1.0 or more, the oil will exhibit a definite positive buoyancy and float.
- If the API gravity of the oil falls into a range that is equal to, lower or higher than the API gravity of the water by a value up to 0.99, the oil can be considered neutrally buoyant. It may rise, entrain in the water column, or sink depending on other factors like currents, turbulence, or sediment.
- If the API gravity of the oil is lower than the API gravity of the water, by a value of 1.0 or more, the oil will exhibit definitive negative buoyancy and not float on the water surface.

TABLE VI-7								
API GRAVITY OF WATER AS A FUNCTION OF SALINITY AND TEMPERATURE (DEGREES F)								
Salinity	Temp 40 °	Temp 50 °	Temp 60 °	Temp 70 °	Temp 80 °	Temp 90 °	Temp 100 °	Temp 110 °
0 ppt	10.04	10.10	10.14	10.28	10.48	10.71	10.94	11.17
5 ppt	9.44	9.49	9.59	9.74	9.94	10.17	10.40	10.63
10 ppt	8.88	8.95	9.05	9.21	9.42	9.64	9.86	10.08
15 ppt	8.33	8.41	8.52	8.69	8.90	9.13	9.36	9.60
20 ppt	7.79	7.87	7.99	8.17	8.38	8.63	8.88	9.13
25 ppt	7.25	7.33	7.47	7.65	7.86	8.10	8.34	8.58
30 ppt	6.71	6.81	6.95	7.13	7.35	7.59	7.83	8.07
35 ppt	6.17	6.28	6.43	6.62	6.84	7.08	7.32	7.56

Information about expected buoyancy is important, but other considerations must also be carefully considered. A specific Group V product can exhibit various behavior patterns depending on the characteristics of the surrounding environment. The first step in developing an overall strategy to respond to Group V spills is to understand, to the maximum extent possible, the environmental parameters of the adjacent water body, and how these parameters may vary on a seasonal or daily basis.

In addition to temperature and salinity, important physical parameters of interest for an adjacent water body include:

- Current Velocity
- Sediment Loading, and
- Stratification

As shown above, **temperature and salinity** are perhaps the most important parameters as they determine the density of the water which in turn provides an API gravity value. Temperature and salinity can vary in the water column with depth, and will often be different at the surface and the bottom, with warmer, fresh water at the surface (higher API gravity), and colder, more saline water near the bottom (lower API gravity). Temperature and salinity will generally vary on a seasonal basis, but may vary over the course of a few days particularly with heavy rainfall. Temperature and salinity characteristics of the water adjacent to a facility can be determined by direct

measurement, or by accessing water quality data compiled by federal and state agencies.

A third **important environmental parameter** affecting the behavior of Group V oil is the **current velocity (speed and direction)** encountered in the adjacent water body. The current velocity will vary in the horizontal direction (velocity often greater at the center of the water body) and in the vertical direction (generally greater at the surface than on the bottom). Current speed and direction will determine the entrainment and transport of Group V oil at the surface and below the surface. Therefore, it is helpful to know the seasonal and tidal variations in current velocity in the adjacent water body. This data can be obtained from direct measurements or previous hydrographic and water quality surveys.

Another **important water quality parameter** that can modify Group V oil behavior is **sediment loading**. As the API gravity of a Group V oil is often very near that of the water it enters, an accumulation of sediment particles by the oil can lower its API gravity to the point that it sinks. This phenomenon has been observed in a number of spills. The amount of sediment in the water column will vary with seasonal conditions (e.g. amount of rainfall which washes sediment from the land into rivers and coastal areas), but can also vary within the course of days, as with a heavy rainfall or high wind and wave conditions, which suspend sediment from the bottom. Data on sediment loading are not as readily available as temperature, salinity and velocity data; and the rate at which the oil will accumulate sediment depends on a number of complex processes. Therefore, qualitative assessments of sediment loading (high, medium, or low) are probably sufficient for predicting Group V oil sedimentation and sinking potential. However, conditions of greatest concern are those where sand becomes incorporated into the oil rather than silt or clay.

Finally, understanding the **vertical density structure** of the water column in the adjacent water body is important; as a highly stratified structure may cause the oil to sink to a level where the density changes rapidly, and remain there, possibly being transported with the current at this level. Evidence of stratification can be found in previous survey results, but confirmation of the stratification and location of the transition



depth can best be determined by on-site use of a portable temperature and salinity meter.

Understanding the impact of the local marine environment on Group V / LAPIO oils, it is appropriate to review, in a broad sense, how spilled oil might behave. Group V / LAPIO might initially float, lose light ends to evaporation and then sink. Some portions of the LAPIO might sink and then rise as a result of heating by the sun or separation of sediment from the oil, while other portions may separate with some portions sinking, some floating, and some remaining in the water column.

### **Behaviors of Spilled Group V Oils**

As indicated in the previous section, there are three basic behaviors for Group V oils, which are determined by the API gravity of the oil with respect to that of water: floating, sinking, or neutral buoyancy. A fourth pattern observed in some Group V oils is separating and fractionating, which is the un-mixing of the oil into heavier oil and lighter cutter stock. The following sections are intended to provide some insight on the various behaviors of spilled Group V oil.

**Floating Group V / LAPIO:** There is no specific experience to report concerning the cleanup of floating LAPIO. It is believed, however, that floating LAPIO might behave in a similar manner to waxy crude oils, which are difficult to clean up since they tend to be very viscous, do not adhere well to surfaces normally used to collect oil, and are extremely resistant to chemical dispersants.

Temperature also greatly affects the behavior of this type of oil when spilled. A change of 5° C can cause this waxy oil to go from a near solid gel, to a fairly mobile fluid, especially if this oil were subject to both warming from the receiving body of water and turbulent wave action. In addition, spilled waxy oils do not form a contiguous film, but tend to separate into mats, droplets, or globules. Group V spills affected by evaporation may exhibit these same properties.

**Sunk Group V / LAPIO:** If LAPIO sinks to the bottom, it can be expected to flow along bottom contours being pushed by currents until it reaches a depression or a barrier. If the viscosity or pour point of the LAPIO is high enough and the water temperature is

cold enough, the oil might stay in place and not flow. Warm weather, however, might reverse this by raising the temperature of the sunken LAPIO; enough to cause the oil to become mobile.

**Neutral Buoyancy Group V / LAPIO:** Neutrally buoyant LAPIO has unusual characteristics. As water temperature declines at night or during periods of cold weather, LAPIO can sink. When exposed to the heat of the sun, LAPIO may tend to rise and float. In brackish estuarine water, LAPIO may initially sink and then float when it moves into areas of higher salinity. LAPIO can also partially sink below the surface, and then be carried away in a variety of unknown directions by underwater currents. In this situation, it could also become trapped between thermally stratified or salinity stratified layers.

**Separating Group V / LAPIO:** Group V oils are a blend of residual oils and “cutter stock,” which is generally a light distillate, combined in a proportion that meets a specific need. However, the mixture may not be entirely homogeneous, due to settling of the components during transport and storage. Once spilled, further changes occur as the lighter ends evaporate. First, the blend could partially “un-mix”, forming different API gravities. Some components of the residual oil (the asphaltenes) can precipitate out when the cutter stock is lost, changing the API gravity and physical properties of the spilled oil. This un-mixing, or separation process, can be accelerated with turbulent mixing which can break the oil into patches, globules, and droplets, all of which may have a slightly different API Gravity. As the globules and droplets become smaller, they will be more easily entrained in currents and vertical turbulence. The result is that some portions of the oil may float on the surface, some may sink, and some may behave as neutrally buoyant oil and be entrained in the water column. This may occur even though the quoted API Gravity of the oil indicated that it would definitely float or sink.

Although the dynamics controlling this behavior are poorly understood, it has been readily observed in actual spills and laboratory tests. It is more likely to occur in oils that are at the neutral buoyancy point, and which are dispersed by waves and currents. It will become more evident the longer the oil is in the water. The onset of this behavior pattern is difficult to predict; it is best detected by direct observation. Once it occurs, it will clearly become a complicating factor for further containment and cleanup of the spill.

**Land Spills:** In most circumstances, LAPIO spills on land will be analogous to conventional fuel oil spills. LAPIO's higher viscosity and higher pour point will mean slower flow of spilled or leaking oil. LAPIO is also less likely to soak into the ground and will be somewhat quicker to form a semi-solid mass. Care should be taken to prevent land spills from reaching surface waters.

Figure VI-1 is an expectation diagram for determining the potential behavior of Spilled Group V (LAPIO) oils. The following tables are general behavior expectation charts and are provided for general reference in understanding what may happen to a spilled oil having an API Gravity of 10 down to 7. It is important to remember there is a full spectrum of API gravity values within that range, and the best approach is to actually determine the API gravity of the oil and the adjacent water body.

**FIGURE VI-1 EXPECTATION DIAGRAM FOR DETERMINING THE POTENTIAL BEHAVIOR OF SPILLED GROUP V OIL**

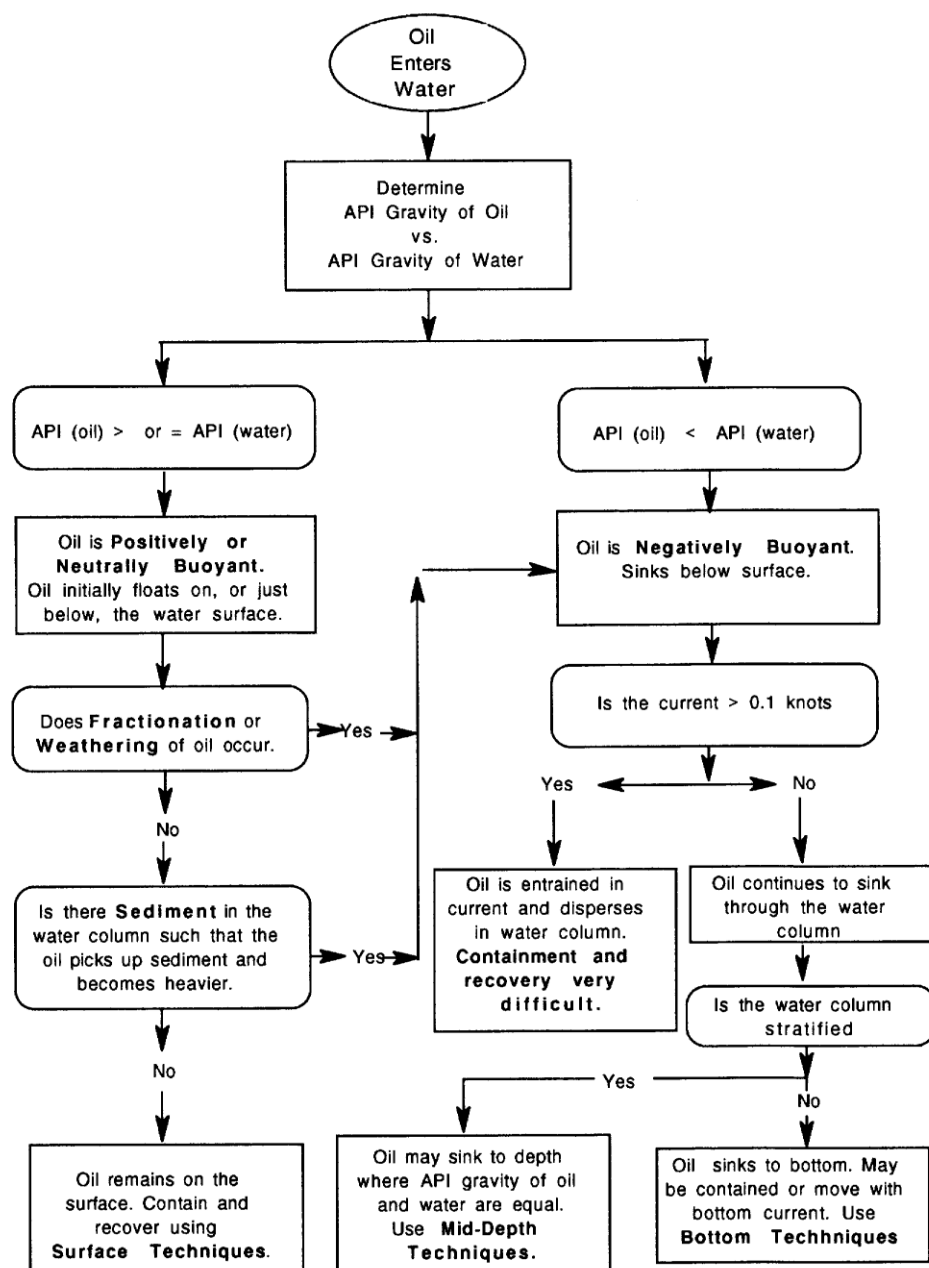




TABLE VI-8								
EXPECTED BUOYANCY OF API GRAVITY 10 OIL IN WATER								
H <sub>2</sub> O Salinity	Temp 40 °	Temp 50 °	Temp 60 °	Temp 70 °	Temp 80 °	Temp 90 °	Temp 100 °	Temp 110 °
0 ppt								
5 ppt								
10 ppt								
15 ppt								
20 ppt								
25 ppt								
30 ppt								
35 ppt								
Key:	Floats		Neutral		Sinks			

TABLE VI-9								
EXPECTED BUOYANCY OF API GRAVITY 9 OIL IN WATER								
H <sub>2</sub> O Salinity	Temp 40 °	Temp 50 °	Temp 60 °	Temp 70 °	Temp 80 °	Temp 90 °	Temp 100 °	Temp 110 °
0 ppt								
5 ppt								
10 ppt								
15 ppt								
20 ppt								
25 ppt								
30 ppt								
35 ppt								
Key:	Floats		Neutral		Sinks			

TABLE VI-10												
EXPECTED BUOYANCY OF API GRAVITY 8 OIL IN WATER												
H <sub>2</sub> O Salinity	Temp 40 °	Temp 50 °	Temp 60 °	Temp 70 °	Temp 80 °	Temp 90 °	Temp 100 °	Temp 110 °				
0 ppt												
5 ppt												
10 ppt												
15 ppt												
20 ppt												
25 ppt												
30 ppt												
35 ppt												
Key:	Floats		Neutral		Sinks							

TABLE VI-11								
EXPECTED BUOYANCY OF API GRAVITY 7 OIL IN WATER								
H <sub>2</sub> O Salinity	Temp 40 °	Temp 50 °	Temp 60 °	Temp 70 °	Temp 80 °	Temp 90 °	Temp 100 °	Temp 110 °
0 ppt								
5 ppt								
10 ppt								
15 ppt								
20 ppt								
25 ppt								
30 ppt								
35 ppt								
Key:	Floats		Neutral		Sinks			

## Facility Considerations

**Site Characterization:** The following section identifies important information concerning site characteristics of surface waters and the environmental setting surrounding the facility.

**Characterization of Water Bodies:** Each water body has certain site-specific physical and chemical characteristics that could affect the movement of spilled oil and the application of particular technology to control or remove these products. When evaluating response strategies, it is important to obtain data on the specific water body which may be the recipient of a spill as these data can contribute to estimating spill behavior and potential environmental impact. This area is not tidally influenced and would mean that the Group V oil would probably be easily contained.

**Characterization of Environmental Settings:** The identification of environmentally sensitive areas and resources surrounding the facility are identified in Section VII. Included in this section is a sensitivity map and a list of sites which may require protection in the event of a spill. Refer to Section VII for more detailed information.

## Response Strategies for Group V Oils

Tables VI-12 and VI-13 contain response equipment that may aid the Spill Responder in conducting an assessment of the incident and in determining an appropriate response strategy. Table VI-12 describes various detection techniques while Table VI-13 provides various containment and recovery options depending on the location and depth of the oil. If a spill of **Group V / LAPIO remains floating**, response strategies may consist of conventional techniques. Containment boom or dredge curtains can be used to surround a spill or deploy downstream to herd the oil to a collection device. Conventional recovery devices may also be effective. The Company owns several different types of skimmers, which are available for use at any Company facility. These include Rope Mop, Weir, Disc and Drum skimmers. The Company also owns a high capacity vacuum system, high capacity pumping systems, four barges (100-barrel capacity each) and has access to numerous vacuum trucks.

If a spill of **Group V / LAPIO sinks**, goes subsurface or disperses, response strategy may consist of a detailed incident assessment. This assessment can be used to determine whether identified impacts of the spill are significant to warrant a response. The assessment can be conducted using divers and equipment such as an Integrated Video Mapping System (IVMS). The IVMS is an on-line computer database that integrates video data with positioning data, allowing the operator to identify exactly where video data is being collected. By following a pre-planned inspection and survey plan, the location and aerial coverage of the spill can be precisely identified and mapped. Survey track and video observations are logged directly into the computer database and simultaneously mapped into a Geographical Information System (GIS) program. Both the aerial coverage, potential impact on biological resources present and qualitative observations of the amount of product (thickness of layer on bottom) can be identified and recorded on videotape. From this assessment, it can be determined whether a response to the spill is needed and feasible, or whether no action is necessary. If a response is warranted, a deep-skirted boom may be used to try and contain the oil if conditions allow. Recovery can consist of employing vacuum units, suction dredges, submersible pumps, or clamshell dredges as appropriate. Recovered oil will be stored in portable tanks, barges, dredge scows or aboveground storage tanks. These containment devices are either owned by the Company or have been identified as being available through Letters of Agreement with various contractors. A list of Company owned equipment is located in Appendix A of this plan and the Corporate Plan.



TABLE VI-12		
DETECTION TECHNIQUES FOR GROUP V OILS		
OIL LOCATION	DEPTH OF OIL	DETECTION TECHNIQUE
On Surface	0 – 1 meter +/-	<ul style="list-style-type: none"> <li>• Visual (aircraft)</li> <li>• Photobathymetric Tech.</li> </ul>
Near neutral Buoyancy (suspended in water column)	0 – 3 meters +/-	<ul style="list-style-type: none"> <li>• Visual (diver)</li> <li>• Sonar</li> <li>• Visual (video mapping, remote camera)</li> <li>• Water Column Sampling</li> <li>• In-Situ Detectors</li> </ul>
Negative Buoyancy (sinks to bottom)	0 – 1 meter +/-  0 – 3 meters +/-  No depth restriction	<ul style="list-style-type: none"> <li>• Visual (aircraft)</li> <li>• Photobathymetric Tech.</li> <li>• Visual (diver)</li> <li>• Geophysical</li> <li>• Sonar</li> <li>• Side-Scan Sonar</li> <li>• Enhanced Acoustic</li> <li>• Grab Samples</li> <li>• Bottom Trawls</li> <li>• Visual (video mapping, remote camera)</li> <li>• In-Situ Detectors</li> </ul>

TABLE VI-13			
CONTAINMENT AND RECOVERY TECHNIQUES FOR GROUP V OILS			
OIL LOCATION	DEPTH OF OIL	RECOVERY TECHNIQUE	NOTES
Neutrally buoyant (suspended) oil	0 – 2 meters +/-	Permeable barriers	Construct wire mesh, netting, and sorbent materials.
		Manual recovery	Use seines (large vertical hanging nets suspended from floaters and weighted down at bottom) and dip nets.
	Variable depths	Midwater trawls/ Vertical nets	Use vertical nets if viscosity is greater than 10,000 centistokes (cs); protect areas with moored vertical nets if oil viscosity is greater than 40,000 cs; use trawls at over 40,000 cs at relatively low tow speed.
		Pumping systems	Use locally where oil is concentrated as in depressions; requires oil/water separation of large volumes of collected material; not practical for recovery of large areas of oil or for oil dispersed throughout water column.
		Onshore recovery	Use conventional shoreline recovery techniques for oil entrained in the water column that eventually re-floats and deposits on shoreline.
Sunken oil (pumpable)	0 – 5 meters +/-	Mud cat	Use with concentrated oil in large volume; must be able to dislodge and pump sunken oil.
	0 – 15 meters +/-	Dustpan/cutter-head dredge	
	0 – 20 meters +/-	Hopper dredge	
	0 – 30 meters +/-	Handheld dredge	
	0 – 40 meters +/-	Oozer dredge	
	Variable depths	Vacuum systems Progressive cavity pumps Air lift pumps	Use only if oil is not highly viscous or solid unless first slurried; do not use centrifugal force, which breaks up globules and causes emulsification
Sunken oil (not pumpable)	0 – 5 meters +/-	Mud cat	
	0 – 15 meters +/-	Cutter-head dredge	
	0 – 30 meters +/-	Manual (divers)	Use when oil is irregularly distributed over large areas or site conditions preclude use of other techniques.
	Variable depths	Bottom trawls Clamshells Robotic systems	Use for recovery of viscous oil and solids; do not use on cohesive oil mats; difficult to use when solids accumulate in nets, retarding flow of water through trawl.

Table VI-14 – Group V Response Contractors				
Full Service Contractors with Submersible Pumping Capability				
Company Name	Phone Number	Location	Description of Services	
John E. McCausland, Inc	(904) 358-1975	Jacksonville, FL	Emergency response team and submersible pumps	
Environmental Recovery, Inc.	(904) 242-0014	Jacksonville, FL	Also subcontracts with dredging company.	
Southern Waste Services	(800) 852-8878	St. Petersburg, FL	Transportable oil/water separators.	
Diversified Environmental Services	(813) 248-3256	Tampa, FL	[Intentionally Blank]	
Oil Mop Inc.	(318) 237-5300	Lafayette, LA	Full service contractor with integrated approach to Group V oil recovery.	
Marine Pollution Control	(313) 849-2333	Detroit, MI	Has equipment pre-staged in Tampa, FL.	
Lightering, Storage and Recovery Barges				
Company Name	Phone Number	Location	Services	
			Tugs	Lightering Barges
TransMontaigne	(954) 525-4261	Ft. Lauderdale, FL	X	X
New Star Energy	(904) 355-9675	Jacksonville, FL		X
Cross State Towing Company	(904) 745-1603	Jacksonville, FL		X
Sunstate Marine	(904) 284-7171	Jacksonville, FL		X
Dredging Equipment				
Company Name	Phone Number	Location	Description of Services	
Bull Dredging, Inc.	(904) 246-1121	Jacksonville, FL	Suction cutter dredges with related submersible pumping systems.	
Great Lakes Dredge and Dock Company	(904) 284-1999	Green Cove Springs, FL	Dredges and associated attendant plant.	
Hendry Corporation	(813) 831-1211	Tampa, FL	Various dredging equipment.	
Diving Contractors				
Company Name	Phone Number	Location	Description of Services	
			Divers	Divers
Continental Shelf & Associates	(561) 746-9746	Jupiter, FL	X	X
Logan Divers, Inc.	(904) 731-0000	Jacksonville, FL	X	X
Sea Tow South	(800) 732-7745	Tampa, FL	X	X
Industrial Divers Corp.	(954) 523-2906	Ft. Lauderdale, FL	X	
Detection and Mapping Services				
Company Name	Phone Number	Location	Description of Services	
Arc Surveying & Mapping, Inc.	(904) 384-8377	Jacksonville, FL	Underwater detection and mapping.	
Temporary Emergency Storage Tanks				
Company Name	Phone Number	Location		
Modu Tanks, Inc.	(800) 245-6964	Long Island, NY		
Baker Tanks	(281) 470-1387	LaPorte, TX		
Oil Water Separator Systems				
Company Name	Phone Number	Location		
Petroleum Management, Inc.	(954) 581-4455	Davie, FL		
Hyde Marine Products, Inc.	(216) 871-8000	Cleveland, OH		

**SECTION VII:****IDENTIFICATION OF ENVIRONMENTALLY SENSITIVE  
AREAS/RESOURCES**

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**A. INTRODUCTION**

The Port of Palm Beach has a short entrance channel from the Atlantic Ocean. The Martin Terminal unloading slip is located west of the turning basin in Lake Worth. The slip and the Port area are almost completely bulkheaded, and have water depths of approximately 32 feet within each slip.

Based on worst case discharges of persistent oil, the planning distance method for oil transport on tidal influenced waters is **15 miles** for Martin Terminal.

The Port of Palm Beach area is predominantly bulkheaded. Figure II-10A shows the environmentally sensitive areas which exist north and south of the Port within Lake Worth lagoon. Lake Worth lagoon is an important estuarine lagoon system. The shoreline of Lake Worth is approximately 65 percent bulkheaded. The remaining shoreline is predominately unvegetated. Extensive mangrove lined shorelines do exist within northern Lake Worth around John D. MacArthur Beach State Park (i.e., the Munyon Island area). The lagoon is host to several, valuable, submerged plant and animal community types including seagrass beds, macroalgae areas, oyster habitat, corals, and sponges.

As mentioned, John D. MacArthur Beach State Park is approximately 3 miles north of the Port area. In event of an oil spill that may impact the state park, the **Oil Spill Coordinator** would contact: Joe Smyth or Pat Rash (561) 624-6950.

Lake Worth lagoon around the Port area is greatly influenced by direct tidal access to the Atlantic Ocean through Lake Worth Inlet. The most important habitat within the area is the submerged beds of aquatic vegetation scattered throughout the area. The seagrass species *Halodule wrightii* (shoal grass), *Halophila decipiens* (paddle grass), and *Halophila johnsonii* (Johnson's seagrass) are the most abundant species within the submerged beds of aquatic vegetation. Attached macro-algal species including *Acanthophora spicifera*, *Caulerpa sertularioides*, *Caulerpa prolifera*, *Caulerpa mexicana*, *Dictyota* sp., *Halimeda* sp., *Hypnea* sp., *Padina* sp., *Penicillus* sp., and

*Udotea* sp. are abundant within the submerged beds of aquatic vegetation. In addition, some hardbottom areas with attached hard corals (*Siderastrea* sp., *Porites* sp., *Monastrea* sp., and *Oculina* sp.), soft corals (*Lophogorgia setacea*), and sponges (*Cliona* sp. and *Spheciospongia vesparium*) are found particularly near the inlet.

Most of the shoreline within the Lake Worth area is bulkheaded. No significant areas of shoreline vegetation (i.e., mangroves) exist within the immediate area around the Port; however, mangrove shorelines exist north and south along Lake Worth, distant from the Port area (e.g., see above). Other types of shorelines include sandy (the largest sandy shoreline surrounds Peanut Island, a spoil island within the lagoon at the inlet) and riprap (i.e., rock rubble).

## **B. PROTECTION OF ENVIRONMENTALLY SENSITIVE AREAS/RESOURCES**

Spilled oil will spread depending on the wind direction and tidal conditions prevailing at the time of the spill. Figure II-15A indicate possible oil slick trajectories at the end of one, four, eight, twelve, and twenty-four hours, assuming various wind directions, a wind speed of 10 mph, and an outgoing tide. Figure II-14 (A-D) provides booming strategies to contain and recover oil and protect sensitive resources. Protection of these listed sites is considered basic initial response strategies. Additional equipment which may be needed to protect these areas is located in Appendix A. Depending on the conditions and situations at the time, additional and different sites may require booming, utilizing additional response equipment, and booming strategies.

The U.S. Fish and Wildlife Service, with input from the scientific and conservation community, has established a hierarchy of protection of environmental sensitive areas. The priority list is as follows:

- Water for Human Consumption
- Endangered or Threatened Species and their habitat
- National Estuarine Research Reserve
- National Wilderness Areas
- National Wildlife Refuges
- National Parks, Monuments, and Seashores

- State Wildlife Refuges and Game Management Areas
- Local or Private Wildlife Refuges
- Seasonal Breeding, Spawning and Nesting Areas
- Salt Marshes
- Brackish Marshes
- Freshwater Marshes
- Commercial and Recreational Fisheries and Management Areas
- National Historic Register Sites
- State Parks
- Public Beaches, Parks, Recreational Areas and Facilities
- Private Beaches, Recreational Areas and Facilities
- Industrial Water Supply
- Other Tourist/Recreational Areas
- Agricultural Land
- Other Undeveloped Land
- Industrial Facilities
- Other Developed Land
- 

For additional information, consult the South Florida Area Contingency Plan maintained by the U.S. Coast Guard Sector Miami.

Figure II-14 (A-D) shows specific booming strategy techniques that could be used in the event of a spill.

### **C. WILDLIFE PROTECTION**

During conduct of ground and shoreline protection and clean-up operations, efforts would be made to minimize disruptions to wildlife. Table VII-1 presents techniques that could be utilized to protect wildlife that may be threatened by an oil spill incident.

TABLE VII-1	
WILDLIFE PROTECTION TECHNIQUES	
TECHNIQUE	DESCRIPTION
Chumming	Involves the distribution of food to lure birds away from an area affected by an oil spill. Food is dumped into the water from a vessel positioned near the spill site. Once the birds have gathered near the vessel, chumming continues as the vessel moves toward an unaffected area.
Hazing	Involves the use of scare-away guns and/or helicopter overflights to prevent birds from landing on a potentially affected area, or to divert birds from marshes, wetlands, refuges, and other sensitive areas.
Translocation	Involves the transfer of animals to an area unaffected by the spill. Animals are captured and moved to a habitat that fulfills their survival needs, but is of sufficient distance from the spill to discourage their return.

Efforts would be made to protect unaffected wildlife, and rescue any affected wildlife.

The following agencies can be contacted for assistance:

**Tri-State Bird Rescue**

(302) 737-9543

**Wildlife Inc**

941-778-6324

**Wildlife Care Center**

954-524-4302

**SECTION VIII:****SPILL SCENARIOS**

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**A. OVERVIEW**

Spill response scenarios provide chronological and summary records of emergency responses to hypothetical emergency situations. Each scenario attempts to address many of the actions that might occur in an actual spill incident. Scenarios are designed to give team members an opportunity to practice their skills. Additionally, team members can relate to the duties and responsibilities of other team members. This interaction should help team members to understand their overall role in an actual spill response.

Scenarios are based on sets of circumstances that may or may not occur in the same sequences or combinations in an actual spill incident. While helpful in providing response personnel and regulators with an understanding of the major activities involved in a response effort, these hypothetical spill and response scenarios may not reflect the actual circumstances surrounding, or actions taken during an incident. Since the actual spill circumstances are unpredictable and the response effort must be tailored to these circumstances, the specific response actions taken during an incident would be unique. Consequently, these spill and response scenarios are intended to serve as planning or training tools, rather than depictions of expected spill response actions or performance guarantees.

Based on the facility's normal operations and the probability of an incident occurring, three different scenarios have been developed:

- Level I – a small or average most probable discharge
- Level II – a medium or maximum most probable discharge
- Level III – the worst case discharge

The risks of a major spill at the facility that would reach surface waters are associated with the potential occurrence of a storage tank failure (hurricane-related), pipeline failure, or the collision of a vessel with the dock or another vessel. The consequences of an accident involving the vessels prior to unloading or after loading are the responsibility of the vessel, and therefore beyond the scope of this plan. Should such an incident



occur at the Martin Terminal, FPL personnel would assist in responding to the incident, as appropriate.

At present, the quantities of oil described in Section X are used to describe the three levels of incidents that may occur at the Martin Terminal. The worst case spill incident is based upon the contents of the pipelines and storage tanks at the facility. The occurrence of a level III incident at the facility resulting in a large release of fuel into the water is unlikely, because of the policies, practices, and procedures described in Section X of this plan. Because of these facts, plausible scenarios have been developed which have a conceivable possibility of occurrence. Actions taken during any major spill incident would be similar with variations according to the conditions (e.g., weather, available equipment and personnel) existing during the response. Response to any major spill incident would involve the activation and mobilization of all available resources. The scenarios will partially incorporate the following operations at the Martin Terminal; additional scenarios for this terminal will be generated during tabletop drills and other exercises:

- Unloading of oil
- Facility maintenance
- Facility piping
- Pumping stations and sumps
- Oil storage tanks
- Age of facility and components
- Refueling vehicles.

Scenarios will consider factors in the following areas, as appropriate:

- incident description (size of discharge, material discharged, direction of discharge, location of discharge)
- environmental conditions (weather or aquatic conditions)
- proximity to downgradient wells, waterways, and drinking water intakes
- proximity to fish and wildlife and sensitive environments
- likelihood of discharge moving offsite
- immediate response actions
- management

- probability of a chain reaction of failure
- incident command
- monitoring
- containment and recovery
- storage and disposal
- response equipment and management
- public relations.

## **B. LEVEL I SPILL SCENARIO**

### **Incident at Truck Unloading Area**

#### *Incident Description*

A tank truck was unloading mineral oil at 0700 on 21 July when the hose ruptured. The Truck Operator immediately radioed the Terminal Operator, shut down the pump and terminated transfer operations by manually closing the shutoff valve. The incident resulted in the release of less than 5 barrels (210 gallons). The oil sprayed onto the truck, the barricades that had been set up, and onto the ground. Some of the oil remains on the ground; however, the larger percentage drains to sumps, which pump to the storm water basin.

#### *Environmental Conditions*

At the time of the incident, winds are light (less than 5 miles per hour) out of the southeast. The winds increase to 10 miles per hour out of the southeast during the day. Air temperature ranges from 85° to 93°F.

#### *Response Actions*

TIME	EVENT
0703	The Truck Operator and Terminal Operator ensure that all valves are closed and flow of oil has stopped. An assessment is made that approximately 2 to 3 barrels (84 to 126 gallons) of oil is on the ground. Assistance is required for cleanup.
0705	The OSC/QI makes the necessary internal contacts to ensure that sufficient backup terminal personnel are available for response. The Oil Spill Coordinator contacts the Corporate Response Team (CRT) and the necessary external contacts (National Response Center, State Warning Point, Palm Beach County, and FDEP).

TIME	EVENT
0715	Terminal response team personnel deploy equipment to clean up the spill. Most of the oil drains to sumps which pump to the storm water basin. A large area of soil surrounding the concrete containment is contaminated with mineral oil. Absorbent pads are utilized to retrieve oil adsorbed to the soil.
0745	Additional terminal personnel begin to arrive. Contaminated soil is excavated and temporarily stored in drums for eventual removal. The Oil Spill Coordinator contacts and identified waste hauler to remove oiled debris.
1000	Final stages of response cleanup continues with the removal of the oiled equipment and pressure cleaning the concrete containment area.

Complete site remediation requires an additional day. The waste hauler is responsible for the transport and disposal of oiled debris and equipment and removal of the oil/water. There are no downgradient wells or drinking water intakes that will be affected.

The probability of this event causing a chain reaction of failures is very low since the rupture in the hose at the truck unloading area would not cause a rupture of the tank, or any other storage area.

### **Incident at Unloading Area**

#### *Incident Description*

A vessel was unloading No. 6 fuel oil at 0700 on 21 July when the loading arm ruptured. The Dock Operator immediately shuts down the pumps and closes the appropriate shore valves. The incident resulted in the release of less than 5 barrels (210 gallons). The oil sprayed onto the dock. Some of the oil remains on the dock; however, the larger percentage goes into the water around the dock. All of the oil is contained within the area between the barge and the bulkhead. This area was enclosed by booms prior to unloading.

#### *Environmental Conditions*

At the time of the incident, winds are light (less than 5 miles per hour) out of the southeast. The winds increase to 10 miles per hour out of the southeast during the day. Air temperature ranges from 85°F to 93°F; water temperature is approximately 85°F. The tide is flooding (low tide was at 0620; the next high tide is at 1223).

## Response Actions

TIME	EVENT
0703	The Plant Operator, Dock Operator, and barge crew ensures that all valves are closed and flow of oil has stopped. An assessment is made that approximately 3 to 4 barrels (126 to 168 gallons) of oil is in the water. Assistance is required for cleanup. The OSC/QI is notified. All of the oil is trapped by the containment boom placed between the barge and the shoreline prior to transfer.
0705	The OSC/QI makes the necessary internal contacts to ensure that sufficient backup terminal personnel are available for response. The Oil Spill Coordinator contacts the Corporate Response Team (CRT) and the necessary external contacts (National Response Center, Coast Guard, State Warning Point, Palm Beach County, and FDEP).
0715	The Dock Operator with the assistance of the barge crew and Port of Palm Beach personnel is able to place additional boom between the barge and the bulkhead to further enclose the oil in the area between the barge and the bulkhead.
0745	Additional terminal personnel arrive. The OSC/QI decides that the primary response contractor will be required to at least remove the oiled spill equipment from the area after cleanup. Oiled cleanup equipment is temporarily stored in bags and drums for eventual removal.
0800	Plant and barge personnel begin cleanup using available sweeps, snares, absorbent boom, skimmers, and available containment boom. The OSC/QI has remained in contact with the CRT; however, one member of the team arrives to observe and advise in site cleanup and remediation.
0900	Response contractor arrives to assist in cleanup and removal of the oiled equipment and debris.
1200	The Coast Guard, FDEP, and Palm Beach County personnel arrive to inspect the site.
1300	Loading arm is repaired and unloading operations are resumed.

Complete site remediation requires an additional two days. The waste hauler is responsible for the transport and disposal of oiled debris and equipment and removal of the oil/water. If necessary, the CRT coordinates press releases and contact with the local media. The US Fish and Wildlife Service is contacted to check on the status of fish and wildlife. There are no downgradient wells or drinking water intakes that will be affected. Containment booms are used to protect environmentally sensitive areas, as discussed in Section VII.

The probability of this event causing a chain reaction of failures is very low since the rupture in the hose at the truck unloading area would not cause a rupture of the tank, or any other storage area.

The likelihood of the discharge moving offsite is low since there are booms in place prior to rupture of the loading hose.

## C. LEVEL II SPILL SCENARIO

### Incident at Pipeline

#### *Incident Description*

At 1000 hours on 12 October, during transfer operations from the Martin Terminal, the pipeline to the Martin Plant fails and begins to release oil. Transfer operations are occurring during a passing weather front so that weather conditions include strong winds and rain. Approximately 10 minutes pass before the leak is discovered. The transfer pumps are immediately shut down, and the pipeline isolation valves closed within 5 minutes of discovery. Approximately 300 barrels (12,600 gallons) of No. 6 fuel oil is spilled onto the ground and is headed to the St. Lucie canal.

#### *Environmental Conditions*

The winds are strong (35 miles per hour, gusting to 45 miles per hour) out of the northwest. Skies are cloudy with a strong, steady rain; the air temperature is approximately 65°F; and the water temperature is 72°F.

#### *Response Actions*

TIME	EVENT
1015	The Terminal Operator affects a shutdown of fuel transfer pumps and all pipeline isolation valves. The Terminal Operator informs the Oil Spill Coordinator of the situation indicating that a large quantity of oil is on the ground. The oil is traveling toward the St. Lucie canal.
1020	The OSC/QI makes the necessary internal contacts to ensure that sufficient terminal personnel are available for response. Available personnel contact the QI. The primary response contractor is contacted to provide additional personnel and materials for the response and cleanup. The Martin county sheriff's department is called to assist in securing the site during response and cleanup operations.
1045	Terminal personnel boom the area of the St. Lucie canal in which the oil spill is headed. Available personnel make the necessary external contacts (National Response Center, State Warning Point, Martin County, and FDEP).
1100	Terminal personnel immediately boom the area adjacent to the St. Lucie canal to prevent any oil for entering the canal. Sweeps, snares and absorbent boom are utilized to begin cleanup.
1330	The response contractor arrives to assist in the removal of the oil that has been contained within that area using VAC trucks.
1400	CRT members arrive and overview the cleanup. A press release is prepared for the local media. Approximately 12,600 gallons of No. 6 fuel oil was spilled from the pipeline. Most of the 12,600 gallons has been recovered or contained within the soil in the area. Cleanup of that area is underway.
1430	The response contractor and available FPL personnel continue the cleanup using vacuum trucks and skimmers. Soil is removed and transported to an incinerator. Waste is stored at a temporary site for removal and disposal by an approved waste hauler. State and local regulators arrive to monitor the situation and meet with the Oil Spill Coordinator and CRT team members.

Soil remediation continues for 3 days following the initial response. Surveillance and oversight by the CRT team members continues for that period to monitor the progress of the cleanup. The US Fish and Wildlife Service is contacted to check on the status of fish and wildlife. There are no downgradient wells or drinking water intakes that will be affected. Containment booms are used to protect environmentally sensitive areas as discussed in Section VII.

Oil transfer operations resumed at the Martin Plant three days after the spill. The facility is able to resume receiving fuel from the Martin Terminal to the tank farm.

The probability of this event causing a chain reaction of failures is very low since the rupture of a pipeline would not cause a rupture of the tank, or any other oil storage area.

### **Incident at Unloading Area**

At 1000 hours on 12 October, a barge is unloading No. 6 fuel oil at the Port of Palm Beach dock when the dock line ruptures at the base of the unloading arm structure. Unloading operations are occurring during a passing weather front so that weather conditions include strong winds and rain. The Vessel Operator and the FPL Operator have stepped away from the pumping operations. The sensor that monitors a pressure drop in the line fails and the pump is not shut down. Approximately 15 minutes pass before the leak is discovered and the pumps are shut down.

Approximately 750 barrels (31,500 gallons) of No. 6 fuel oil is spilled onto the dock and into the water. Both units are in reserve shutdown.

### *Environmental Conditions*

As has been described, the winds are strong (35 miles per hour, gusting to 45 miles per hour) out of the north. Skies are cloudy with a strong, steady rain; the air temperature is approximately 65°F; and the water temperature is 72°F. Tidal influence is negligible. Current is to the south, predominately wind influenced.



*Response Actions*

TIME	EVENT
1015	The FPL Operator and vessel operator effectively shutdown fuel unloading operations and all valves. An initial assessment is immediately conducted. The FPL Operator informs the Oil Spill Coordinator of the situation indicating that a large quantity of oil has entered the water. The oil spill coordinator requests that the plant shutdown all circulating water pumps.
1020	The OSC/QI makes the necessary internal contacts to ensure that sufficient plant personnel are available for response and leaves for the site to make an initial assessment. Available personnel make the necessary external contacts (National Response Center, Coast Guard, State Warning Point, Palm Beach County, and FDEP) and also contact the Oil Spill Coordinator, the Corporate Response Team (CRT), and Martin Terminal. The primary response contractor is contacted to provide additional personnel and materials for the response and cleanup. The Riviera Beach Police Department is called to assist in securing the site during response and cleanup operations. CRT arranges for an aerial overflight.
1045	Additional plant personnel launch the boat from the Plant's boat ramp and assist in the deployment of available boom across the barge basin and in front of the intake structure in order to trap the entrained oil along the north side of the barge basin. The CRT Wildlife Unit Leader checks with the wildlife agencies on the current locations of manatee and bird species populations around the plant area and prepares to contact a wildlife recovery and rehabilitation firm, if necessary.
1100	Plant personnel begin cleanup of the barge basin using the equipment available at the plant including skimmers, pumps and tanks, sweeps, snares, and absorbent boom.
1215	Martin Terminal personnel arrive with additional equipment and assist in barge basin cleanup using available skimmers, inflatable tanks, and absorbents.
1330	The response contractor arrives to assist in the recovery of oil within the barge basin using vacuum trucks.
1400	CRT members arrive and are briefed on the current situation. The oil has been contained and recovery is progressing. A press release is prepared for the local media. Approximately 31,500 gallons of No. 6 fuel oil was spilled at the facility. All of the oil has been contained within the barge basin. Recovery is progressing well.
1430	The response contractor and available FPL personnel continue the barge basin cleanup using vacuum trucks, skimmers, and absorbents. Product from skimming, separating, etc. is stored in an available tank for use. Waste is stored at a temporary site for removal and disposal by an approved waste hauler. State and local regulators arrive to monitor the situation and meet with the Oil Spill Coordinator and CRT team members.

Barge basin and cleanup continues for 3 days following the initial response. Surveillance and oversight by the CRT team members continues for that period, to monitor the progress of the cleanup. The US Fish and Wildlife Service is contacted to check on the status of fish and wildlife. There are no downgradient wells or drinking water intakes that will be affected. Containment booms are used to protect environmentally sensitive areas as discussed in Section VII.

Oil transfer operations resumed at the plant three days after the spill. The facility is able to resume offloading from barges to the tank farm.

The probability of this event causing a chain reaction of failures is very low since the rupture of a dock line would not cause a rupture of the tank, or any other storage area.

Oil transfer operations resumed at the plant three days after the spill. The facility is able to resume offloading from barges to the tanks.

#### ***D. LEVEL III SPILL SCENARIO***

##### **Incident at Fuel Oil Storage Area**

###### *Incident Description*

At 0400 hours on 24 August, the Palm Beach County area was hit by a fast moving weather system, which caused significant rainfall and tornados. A tornado struck Tank A, a No. 6 fuel oil storage tank at the terminal.

Personnel were not able to fully inspect the site until after sunrise at approximately 0700 hours. Damage to the terminal was minimal; however, flying debris which pierced the western fuel oil storage tank (Tank A), on the west side of the diked area, released approximately 80,000 barrels (3,360,000 gallons) of No. 6 fuel oil into the containment area. Winds have blown the mixture around the site, coated buildings and both Tanks A and B. The nearly 14 inches of rainfall and oil have filled the containment area and as a result of erosion of the secondary containment, the oily water mixture is flowing into the borrow pit drainage canal EPB - 9. The release is estimated at approximately 20,000 barrels (840,000 gallons).

###### *Environmental Conditions*

The weather system passes within a matter of hours traveling from the west toward the east. After the storm passes, weather conditions gradually return to a normal weather pattern of clear skies, winds from the southeast at approximately 12 miles per hour. Air temperature is 86°F; water temperature is 85°F.



## Response Actions

Because of the unique nature of this type of incident and lack of available personnel at the facility to respond to this size and type of incident, the response to this scenario will be described as actions within a phased response. This incident will require the implementation of the Corporate Response Team (CRT) and the Incident Command System (ICS). A general time line will be described.

TIME	EVENT
Day 1 0700	<b>Initial Assessment –</b> The Oil Spill Coordinator is able to survey the site to make an initial assessment. The secondary containment area is filled with an oil water mixture and a breach in the secondary containment has resulted in overland flow to the borrow pit canal EPB - 9. The terminal site and surrounding area is also covered with oil.
Day 1 0710	<b>Required Notifications –</b> All required external notifications (National Response Center, Martin County, State Warning Point, and FDEP) are made. The Oil Spill Coordinator makes all of the necessary internal notifications to mobilize available terminal personnel, the Qualified Individual, and the CRT. The Oil Spill Coordinator also contacts the Palm Beach County Sheriff's Department to assist in traffic control during the initial response effort.
Day 1 0730	The CRT immediately begins to mobilize to the area. Based on the information from the initial assessment, CRT team members mobilize response contractors, arrange for a helicopter for site surveillance, and arrange for site security.
Day 1 0800	<b>Initial Response –</b> Additional terminal and plant personnel begin to arrive. They are assigned the tasks of checking and inventorying available response equipment and general facility equipment. Personnel check to ensure that flow from the containment area has stopped. Drainage pathways to the water are investigated. Plans are made to mobilize equipment needed to block the pathways. Containment booms are deployed to the canal to further contain oil so that it may be picked up by the skimmers. Three drum type oil skimmers and portable pumps are placed in service.
Day 1 1100	<b>Response Initiation Phase - Detailed Assessments –</b> Members of the CRT arrive at the site. The command center is setup at the Office building at the terminal site.  CRT begins detailed assessments of the spill site. Containment and cleanup activities continue with available personnel. Additional containment booms are deployed in the canal system to isolate the spill.
Day 1 1300	<b>General Plan Development Phase - Initial Incident Briefing Meeting</b> The Incident Commander calls a meeting of the Command Staff after the detailed assessments are performed. He is apprised of the status of the spill through detailed assessment reports. The cleanup priorities are: <ul style="list-style-type: none"> <li>• ensure the safety of personnel at the site;</li> <li>• contain and begin cleanup of oil;</li> <li>• protect environmentally and socially sensitive areas;</li> <li>• begin to cleanup the oil on the site ground;</li> <li>• begin to cleanup oil and water within the secondary containment area;</li> <li>• repair the tanks; and</li> </ul>

TIME	EVENT
	<ul style="list-style-type: none"> <li>• keep the public informed.</li> </ul> <p>The following immediate response priorities are identified.</p> <ul style="list-style-type: none"> <li>• All personnel are to receive a safety briefing and be issued appropriate safety equipment.</li> </ul>
Day 1	<p><b>Initial Tactical Operations Planning Meeting</b></p> <p>The Operations Section Chief holds a meeting with the Command Staff, Section Chiefs, and the assigned area directors. During this meeting, they determine the equipment required to achieve the strategic objectives and response priorities for the next operational period.</p> <ul style="list-style-type: none"> <li>• Five thousand feet of absorbent boom, miscellaneous absorbents, sweeps, etc are required.</li> <li>• Front-end loaders and dump trucks are required to remove contaminated soil and repair the damaged berm.</li> <li>• Communications equipment is required for work groups and a base station.</li> <li>• Vacuum trucks, rope mop skimmers, and other types of skimmers are required to remove oil from pooled areas and the containment area.</li> </ul> <p>Approximately 40 people (20 FPL and 20 contract) are required for the nearshore/onshore activities. All personnel must have required HAZWOPER training.</p>
Day 1	<p>The Initial Tactical Operations Planning Meeting results in a list of activities which need to be conducted over the course of the response. The manpower, equipment, and resources required for these activities must be developed over the next 24 to 48 hours. These activities include:</p> <ul style="list-style-type: none"> <li>• continued high capacity recovery;</li> <li>• recovered oil storage;</li> <li>• continued containment and recovery in the canal system;</li> <li>• support infrastructure (e.g., food, lodging, water, sanitation facilities, transportation, etc.)</li> <li>• wildlife hazing, capture, and rehabilitation (if applicable);</li> <li>• waste handling and disposal;</li> <li>• equipment cleaning;</li> <li>• eventual site restoration, including the ability to store and receive oil from the Martin terminal;</li> <li>• eventual demobilization.</li> </ul>
Day 1	<p>The planning Section Chief compiles the information from the Initial Tactical Operations Planning Meeting and prepares the General Plan. The General Plan is a dynamic plan which will be revised and updated throughout the response effort to reflect the changes in the spill and input from the Command Staff and regulatory authorities.</p>
Day 2	<p><b>Initial Planning Meeting –</b></p> <p>A meeting is held to discuss the current status of response operations, discuss and approve the General Plan, and issue division/group assignments for the next operational period.</p> <p>The oil has been contained in areas around the terminal and in the canal system. These areas need to be prioritized for clean-up.</p> <p>A number of plans are identified that need to be prepared including:</p> <ul style="list-style-type: none"> <li>• a communications plan;</li> <li>• a medical plan;</li> <li>• a waste disposal plan;</li> </ul>

TIME	EVENT
	<ul style="list-style-type: none"> <li>• a containment area cleanup plan; and</li> <li>• a facility cleanup plan, including returning the facility to operational condition as soon as possible.</li> </ul> <p>The Planning Section Chief prepares the Initial Incident Action Plan from the meeting information. This plan defines the strategic objectives and response priorities and division/group assignments for the next operational phase.</p>
Day 2	<p><b>Initial Incident Briefing Meeting –</b></p> <p>The Command Staff are briefed on the Initial Planning Meeting and the Initial Incident Action Plan.</p>
Day 2	<p><b>Plan Implementation Phase –</b></p> <p>The field personnel conduct the response operations in accordance to the Initial Action Plan which has been prepared by activity through the night and into the morning of Day 2. The Planning Section Chief is beginning a new Action Plan based upon continuing input from the Command Staff, field management, and responsible agencies.</p>
Day 2	<p><b>Command Staff Meeting –</b></p> <p>The Incident Commander conducts a Command Staff Meeting to brief the staff on the status of the incident and describe the strategic objectives. Topics receiving particular attention include:</p> <ul style="list-style-type: none"> <li>• wildlife capture and rehabilitation, if necessary;</li> <li>• sensitive area protection and cleanup; and</li> <li>• availability of additional equipment and personnel;</li> </ul>
Day 2	<p><b>Unified Command Meeting –</b></p> <p>A meeting is held with representatives of the federal state, and local agencies and representatives of FPL to explain and discuss the status of the incident, FPL's proposed course of action, and strategic objectives and response priorities. The Initial Incident Action Plan is distributed and discussed.</p> <p>State and local agencies express a concern about the damaged secondary containment. The agencies agree to work with the Operations Section Chief and The Environmental Section Chief to further develop appropriate protection and cleanup techniques. All parties agree to FPL's proposed strategic objectives and response priorities.</p>
Day 2	<p><b>Tactical Operations Planning Meeting –</b></p> <p>To complete the initial planning cycle and begin the daily planning cycle, a meeting is held to define specific activities that will be undertaken to achieve the strategic objectives and response priorities. Appropriate protection/response techniques are selected for shorelines which have been impacted during the immediate and future operational periods. Additional manpower, equipment, and resource requirements are predicted. The major response areas still are along the canal bank, at collection points west and south of the terminal and within the secondary containment area.</p> <p>Within these areas, additional personnel, boom (and associated line and anchors), boats, and cleanup equipment are required to protect sensitive areas and force the oil into collection areas for recovery and cleanup.</p> <p>At the facility site, the containment area needs to be drained so that site remediation can begin.</p> <p>Tactical Operation Plans and draft Division/Group Assignments are compiled based upon the field activities planned for the next operational period and distributed to appropriate members of the response organization. Each person is required to review the plans for personnel, equipment, etc. as requirements for the next operational period.</p>

TIME	EVENT
Day 2	<p><b>Planning Meeting -</b></p> <p>A meeting is held to discuss the progress of implementation of the Initial Action Plan and the strategic objectives and response priorities within the proposed tactical operation plans for the next operational period.</p> <p>The Operations Section Chief reports that approximately 5,000 gallons of oil has been recovered. Protection and containment has been effective.</p> <p>The Division/Group Assignment Forms are compiled and the Planning Section Chief begins to compile the Incident Action Plan to reflect the activities to be conducted to achieve strategic objectives and response priorities.</p>
Day 3	<p><b>Briefing Meeting –</b></p> <p>A briefing meeting is held to discuss the status of the incident and response operations. Division/Group Assignments for the next operational period are discussed along with safety and environmental considerations.</p> <p>The Logistics Section Chief reports that sufficient quantities of personnel and equipment are arriving. Arrangements have been made for expanding accommodations, food, water, and sanitation for the personnel at various locations around the terminal. The security firm has arrived to replace the local police in security duties. Handling oil debris and fluid is a problem. A temporary staging area for oil debris is being designed and constructed.</p> <p>The Environmental Section Chief reports that the agencies are sending personnel to view aspects of the response and cleanup. The Natural Resource Damage Assessment (NRDA) contractor has been selected. The environmental section and agencies will work with the NRDA contractor. The Planning Section Chief reviews Division/Group Assignments. The Incident Action Plan is completed and distributed for the next operational period.</p>

### Continued Response and Related Activities

For the duration of the incident response, the same Daily Planning Cycle was conducted so that field response operations are implemented, while the Command Staff develops plans to achieve the strategic objectives and response priorities (as agreed upon during Unified Command Meetings) for the next operational period. As new issues and impacts arise, they are incorporated into the response priorities and addressed during subsequent operational periods.

The Corporate Communications Officer prepares a daily press release from the situation status reports prepared by the command staff. The Corporate Communications Officer and Legal Officer begin to field complaints.

The spill response requires approximately 16 days. Facility site remediation and cleanup continues for approximately two months. The terminal is fully operational within 21 days.

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**SECTION IX:****WASTE MANAGEMENT**

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**A. TRANSFER, STORAGE, AND DISPOSAL OF WASTES**

Depending on the size of an oil spill, the various quantities of waste materials generated would range from oil spill clean-up wastes to miscellaneous wastes from ancillary activities. These wastes can vary from oily debris and sorbent materials, to domestic wastes, used batteries, and sorbents. All of these wastes would need to be classified, segregated, and separately transported from the site, and treated and/or disposed of at (an) approved disposal site(s). The **Oil Spill Coordinator** would be responsible for managing waste disposal operations for Level I (small) spills. Disposal operations related to larger spills will be managed by the Oil Spill Coordinator working closely with the CRT.

**B. CHARACTERIZATION OF WASTES**

Both liquid and solid, or semi-solid, wastes will be generated during response operations. These wastes may further be characterized as oily or non-oily wastes. In addition, some hazardous wastes may also be generated. A summary of the types of response operations that are likely to generate these waste streams are provided below.

**C. OILY LIQUID WASTES**

Oily liquid wastes (i.e., oily water and emulsions) that would be handled, stored, and disposed of during response operations are very similar to those generated during routine terminal operations. The largest volume of oily liquid wastes would be produced by offshore recovery operations (e.g., through the use of skimmers and/or vacuum devices). In addition, oily water and emulsions would be generated by vessel, vehicle, and aircraft operations (e.g., spent motor oils, lubricants, etc.), vessel and equipment cleaning operations, the storage area stormwater collection systems, and wildlife cleaning and rehabilitation operations.



***D. NON-OILY LIQUID WASTES***

Response operations would also produce non-oily liquid wastes. If oil recovered offshore goes through a separation process, the wastewater produced may be of a quality that meets federal and state standards to be considered a non-oily liquid waste. Water quality testing would be required to make this determination. In addition, water and other non-oily liquid wastes would be generated by the storage area and stormwater collection systems, vessel and equipment cleaning (i.e., water contaminated with cleaning agents), wildlife cleaning and rehabilitation operations (i.e., water contaminated with animal wastes), and office and field operations (i.e., sewage).

***E. OILY SOLID/SEMI-SOLID WASTES***

Oily solid/semi-solid wastes, which would be generated by containment and recovery operations, include damaged or worn-out booms, un-cleanable equipment, used sorbent materials, saturated soils, contaminated beach sands, and other debris. In addition, wildlife capture, cleaning, and rehabilitation operations would produce oiled carcasses, and oil-soaked sorbent materials.

***F. NON-OILY SOLID/SEMI-SOLID WASTES***

Non-oily solid/semi-solid wastes would be generated by office and field operations (i.e., domestic waste refuse). Vessel, vehicle, and aircraft operations would also generate solid wastes. Wildlife capture, cleaning, and rehabilitation operations would produce both medical wastes and food wastes.

***G. HAZARDOUS WASTES***

Small amounts of hazardous wastes could be generated by various aspects of response operations. For example, vessel, vehicle, and aircraft operations may result in used batteries waste and may require the use of solvents, both of which may be hazardous wastes when disposed.

***H. SEGREGATION OF WASTES***

A system for managing the segregation of wastes generated during response operations would be established in the field. Wastes would be segregated according

to type at the time of cleanup to facilitate disposal. Segregation techniques would ensure that:

- Personnel can readily identify waste materials present in their work areas;
- Personnel can readily identify waste materials that they are handling;
- Appropriate wastes are transported in proper containment units;
- Appropriate wastes are shipped to proper temporary storage areas; and
- Appropriate wastes are shipped to proper disposal facilities.

Waste segregation techniques that would be employed include: designating specific containers to handle specific wastes; labeling containers; using color-coded poly bags; and/or designating specific areas for the temporary placement of specific wastes.

#### ***I. STORAGE AND DISPOSAL PROCEDURES***

During an oil spill incident, the volume of oil that can be recovered and dealt with effectively would depend upon the storage capacity available. Storage methods that would be employed would depend upon:

- The type and volume of material to be contained;
- The type of contaminants present, if any;
- The duration of storage;
- The environmental setting;
- Access;
- The time of year; and
- The proximity to human settlements.

Waste generated for Level I oil spills would temporarily be stored at the Martin Terminal. Typical short-term storage options are summarized in Table IX-1. The majority of these options can be used either on land or on water. Storage containers, such as bags or drums, would be clearly marked, labeled, and/or color-coded to indicate the type of material/waste contained and/or the ultimate disposal



option. The following is a brief description of the potential wastes that may be generated and the disposal options available.

### **Recovered product**

FPL owns several recovery barges that would be utilized to recover oily water in the event of a spill. The recovery barges have a storage capacity of 100 barrels. Recovered oil waste would then be pumped into onsite oil water separator(s). The recovered fuel will be stored onsite in available storage tanks.

Table IX-2 lists the available storage capacity at FPL facilities. Table IX-3 lists available FPL/Vendor tank trucks. FPL tank trucks are capable of transporting up to 86,600 gallons of waste oil and recovered product. This recovered product could potentially be trucked to other FPL facilities and potentially utilized as a source of fuel.

### **Contaminated Soil**

Contaminated soil would be placed in a bermed area underlain by Visqueen, a plastic liner. This bermed area would be constructed onsite and would also be covered with Visqueen. Representative soil samples of the contaminated soil would be collected and submitted to a laboratory for analyses. Upon receipt of analyses, this soil would be transported to an approved vendor for thermal treatment. Additional company-approved waste transporters, identified in Table IX-4, would be used as back-up waste transporters for large volumes of contaminated soil.

### **Contaminated Equipment and Materials**

Contaminated equipment that may be generated includes drums, tank parts, valves, and shovels. If catastrophic failure of the tanks is involved, and tank parts and valves need to be disposed of, the parts would be steam cleaned and stored onsite on Visqueen. The minimal water generated during steam cleaning processes would be routed through the onsite oil water separator. Shovels would be steam cleaned and reused. Drums used to contain contaminated equipment/materials would be disposed of in similar fashion to the most recent contents of the drum (i.e., if the drum last contained waste oil, it would be disposed of as an empty waste-oil drum).

TABLE IX-1					
SHORT TERM STORAGE OPTIONS					
CONTAINER	ONSHORE	OFFSHORE	SOLIDS	LIQUIDS	NOTES
Barrels	•	•	•	•	May require handling devices.
Tank Trucks	•	•		•	Consider road access onshore. Barge mounted offshore.
Dump/Flat Trucks	•		•		Require impermeable liner and cover. Consider flammability of vapors at mufflers.
Barges		•	•	•	Liquids only in tanks. Consider venting of tanks.
Oil Storage Tanks	•	•		•	Consider problems of large volumes of water in oil.
Bladders	•	•		•	May require special hoses or pumps for oil transfer.
Pits	•	•	•	•	Liner(s) required.
Frac Tanks	•				Consider road access.

TABLE IX-2			
FPL WASTE OIL STORAGE CAPACITY			
FRAC TANK LOCATION	TANK NUMBER	TANK CAPACITY (BARRELS)	TOTAL CAPACITY OVERFLOW POINT (BARRELS)
Putnam Plant	D	(b) (7)(F), (b) (3)	(b) (7)(F), (b) (3)
Putnam Plant	F		
Martin Terminal	Purge Oil		
TOTAL QUANTITY (BARRELS)			

TABLE IX-3			
FPL/VENDOR TANK TRUCK CAPACITY			
LOCATION/FPL DEPARTMENT	NUMBER	VOLUME/TRUCK (GALLONS)	TOTAL VOLUME (GALLONS)
FPL Fleet Services	8	(b) (7)(F), (b) (3)	
FPL Fleet Services	1		
FPL Fleet Services	2		
FPL Fleet Services	1		
TOTAL	12		
FPL has access to additional tank trucks owned by various vendors if needed. Contact Fleet Service for assistance.			

## Personnel Protective Equipment

Personnel protective equipment that may be generated during spill containment and cleanup include spent respirator cartridges, Tyvex suits, coveralls, etc. Spent personnel protective equipment would be stored in 55-gallon drums. These drums would be clearly marked, sampled and stored onsite. Upon receipt of the analytical results, these wastes would be sent to one of the destruction facilities identified in Table IX-5, or to a licensed landfill, if thermal treatment is not an option.

Table IX-4					
COMPANY APPROVED WASTE TRANSPORTERS					
COMPANY NAME	PHONE NUMBER	METHOD OF TRANSPORT	WASTE TYPE		
			HAZARDOUS		
				OIL/OILY WATER	SOLID WASTE
Clark Environmental	(800) 276-2187	Vacuum Trucks Dump Trailers		X	X
Clean Harbors	(863) 533-6111	Vacuum Trucks Tanker Trucks	X	X	X
Diversified Environmental Services (Tampa Area)	(800) 786-3256	Vacuum Trucks		X	X
JAM Environmental Services	(954) 625-2310 (954) 366-8744 (Emergency)	Vacuum Trucks Box Truck Tanker Trucks		X	
FCC Environmental	(954) 785-2320 (800) 235-0189	Bulk Trailers Vacuum Trucks Dump Trucks		X	X
SWS	(877) 742-4215 (954) 957-7271	Vacuum Trucks Tanker Trucks Drum Trucks Box Trucks	X	X	X
World Petroleum	(954) 327-0724	Tanker Truck		X	

TABLE IX-5					
SOIL TREATMENT (THERMAL DESTRUCTION) AND DISPOSAL FACILITIES					
COMPANY NAME	PHONE NUMBER	WASTE TYPE			
		LANDFILL/ THERMAL DESTRUCTION PETROLEUM CONTAMINATED SOILS	OILY DEBRIS	OILY WATER	SORBENT MATERIAL
Clark Environmental Mulberry, FL	(800) 276-2187	Thermal Destruction	Yes	Yes	Yes
Waste Management, Inc. Pompano Beach, FL 33073	(954) 974-7500	Non Haz Landfill	No	No	Yes
Waste Management, Inc. Okeechobee Landfill	(863) 763-4818	Non Haz Landfill	Yes	No	Yes
Waste Management, Inc. Medley	(305) 883-7670	Non Haz Landfill	No	No	Yes

### Decontamination Solutions

Anticipated decontamination solutions would include waste generated from steam cleaning operations, isopropyl alcohol, etc. Liquid generated from steam cleaning operations would be routed through the oil water separator. Spent isopropyl alcohol would be collected in plastic containers and labeled. Large quantities of spent isopropyl alcohol would be stored in labeled 55-gallon drums. An analytical sample would be collected and analyzed. Upon receipt of the analytical results, a determination would be made as to whether the waste is hazardous or non-hazardous. For hazardous waste, a manifest for hazardous waste transportation and disposal would be filled out and signed by the generator and transporter. A copy of this would be sent to FDEP. FDEP would enter the manifest into their system. Non-hazardous waste would be transported and disposed of at a licensed, non-hazardous, disposal facility.

### Adsorbents

Spent adsorbents generated would be placed in 55-gallon drums or roll-offs. Representative analytical samples would be collected and analyzed; upon receipt of

the analytical results, these adsorbents would be transported to any one of the thermal destruction facilities identified in Table IX-5.

### **Spent Chemicals**

Spent chemicals, cleaning agents for wildlife cleaning and rehabilitation operations, and other related activities would be contained in 55-gallon drums. The types of wastes will be segregated, e.g., wildlife cleaning and rehabilitation wastes in one set of drums, spent motor oils and lubricants in another set of drums, etc. Analytical analyses will be conducted on these separate sets of waste, and based on the analytical results, these wastes will be disposed of accordingly and transported to a licensed, disposal facility.

### ***J. TRANSPORTATION PROCEDURES***

Hazardous waste would only be transported by company-qualified, fully licensed, hazardous waste transporters. Non-hazardous wastes would be transported by licensed non-hazardous waste transporters.

### ***K. DISPOSAL PROCEDURES***

The prerequisite to most disposal companies accepting waste (whether thermally treated or land-filled) is analytical analyses, which should be conducted by a NELAP (National Environmental Laboratory Accreditation Program) certified laboratory. Table IX-6 describes the generic analytical requirements for disposal.

A number of options exist for disposal of wastes resulting from an oil spill. Whether an option is appropriate would be dependent upon the following characteristics of the waste targeted for disposal:

- Solid or liquid.
- Oily or non-oily.
- Hazardous versus non-hazardous. (Note: some waste testing may be required.)

Cleanup and disposal of petroleum and petroleum contaminated soils will be conducted in accordance with the requirements in CH G2-770 or CH 62-780 as appropriate.

TABLE IX-6	
GENERIC ANALYTICAL REQUIREMENTS FOR DISPOSAL	
WASTE OILS-WASTE FUELS	
1.	601
2.	602
3.	8 RCRA Metals Totals (Arsenic, Barium, Cadmium, Chromium, Lead,
4.	Mercury, Selenium, Silver).
5.	Total Halogens
6.	Percent Water (%)
7.	Flash Point (°F)
8.	Percent Solids (%)
OILY WASTE WATERS	
1.	601
2.	602
3.	RCRA Metals (Total)
4.	Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Silver, Selenium.
5.	Total Chlorides
6.	Total Organic Carbon (TOC)
7.	Percent Solids (%)
CONTAMINATED SOILS/SLUDGES	
1.	VOH (Volatile Organic Halocarbons) – 8010
2.	VOA (Volatile Organic Aromatics) – 8020
3.	TRPH (Total Recoverable Petroleum Hydrocarbons) – 9073
4.	Total Metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver)
5.	Total Organic Halides - 9056, 9252, 9253
6.	Soils contaminated with used oil, hydraulic oil, or mineral oil shall be analyzed for PCB by EPA methods.
7.	Percent Solids (%)

#### **L. RECYCLING**

This technique would entail removing water from the oil and blending the oil with uncontaminated oil. For Level I oil spills at the Martin Terminal, oily water would be treated onsite by the oil/water separator. The oil would be sent to other facilities for use and the solid waste would be stored in drums until shipment to an appropriate waste disposal site could be performed.

## ***M. TREATMENT***

The State of Florida has no permitted land disposal facilities designed to accommodate hazardous wastes or significant petroleum contaminated residues.

The State of Florida proposes that residue from coastal cleanup be staged in the contaminated area on synthetic, flexible membrane, liner material until (a) disposal option(s) can be agreed upon. The State's guidance is that thermal destruction of residue, in most cases, would be the most cost-effective option. Thermal destruction would be carried out by:

- Municipal solid waste combustors;
- Stationary thermal treatment facilities; and
- Mobile incinerators.

The following factors would determine which facilities, or a combination thereof, would be utilized:

- Location of spill;
- Product spilled;
- Quantity of oil that comes ashore;
- Type(s) of coastal environment(s) impacted; and
- Type(s) of residue(s) to be disposed of and how contaminated the material is.

The State recommends the following:

- Heavily contaminated residue such as sorbent pads, seaweed, and debris should go to solid waste combustors. With operating temperatures approaching 1800°F, these facilities can blend the residue in with the solid waste and effectively destroy it. As a side benefit, most of these facilities recover energy in the form of steam or electricity so that some resource recovery is accomplished in the process. These facilities cannot, however, handle residue containing a great deal of sand or soil. Fine-grained materials would fall through the grates in the combustor burner and foul machinery at the plant.
- Contaminated soils should be disposed of at one of the thermal treatment facilities located in the state. These facilities are either rotary kilns or asphalt dryers and are designed to process fine-grained materials. Depending on their intended primary use such as cement

production, clay processing, or asphalt drying, they operate at varying temperatures and have different throughput capacities. The choice of which to use will depend on location, how contaminated the soils are, and the capacity of the facility. Soils greatly contaminated with heavy petroleum should go to treatment facilities with higher operating temperatures. Once the soil is treated to the standards established by Department of Environmental Protection, it can be sold as clean fill. In the event that the total halogen content is too high and incineration is not an option, contaminated soil will be disposed of at a state-approved landfill.



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**SECTION X:****DISCHARGE PREVENTION MEASURES**

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**A. SPCC PLAN COMPONENTS**

This section addresses the Spill Prevention, Control and Countermeasure (SPCC) plan components for the Martin Terminal. The facility information presented in this section is summarized below:

- Facility's conformance with the SPCC requirements;
- Bulk storage and non-bulk storage containers;
- Containment and diversionary structures;
- Facility tank truck loading & unloading & facility transfer operations;
- Discharge potential;
- Discharge prevention measures;
- Other effective discharge prevention & containment procedures;
- Facility Drainage;
- Discharge reports;
- Integrity testing & brittle fracture evaluation;
- Inspections;
- Site security;
- Site specific drawings.

**B. FACILITY'S CONFORMANCE WITH SPCC REQUIREMENTS**

The facility is required to conform to the general requirements for all SPCC facilities, under 40 CFR 112.7(c) through (k). During 2004, an analysis was performed at the Martin Terminal to assess the requirements of the revised SPCC rule as published on July 17, 2002 with the terminal's existing spill prevention and control measures. As a result of that analysis, certain facility upgrades have been identified for implementation as provided in the following table.

DESCRIPTION OF MODIFICATION	PLANNED IMPLEMENTATION DATE
Investigate oil storage volume and provide containment for pad mount transformer X3 as needed.	Completed in 2008
Riviera Beach Energy Center (RBEC) Compressor Station at Martin Terminal	1 <sup>st</sup> Quarter 2014
RBEC Compressor Station Master Piping Plan Figure II-17A	1 <sup>st</sup> Quarter 2014
Modify Figure II-17 and Figure II-18 to reflect addition of RBEC Compressor Station and modification of barge unloading piping for RBEC.	1 <sup>st</sup> Quarter 2014
Complete RBEC Compressor Station final grading and drainage and provide as-built drawings.	2 <sup>nd</sup> Quarter 2014
Riviera West (Lateral) Gas Yard	2 <sup>nd</sup> Quarter 2014
RBEC Gas Yard	2 <sup>nd</sup> Quarter 2014
Construction of RBEC Boat Ramp	2 <sup>nd</sup> Half 2014
Construction of oil water separator at the existing No. 6 Fuel Transfer Yard at Port of Palm Beach and discharge line that connects to the RBEC Stormwater System.	2 <sup>nd</sup> Half 2014
Modification of No. 6 Fuel Transfer Yard at Port of Palm Beach stormwater system for piping outside of secondary containment.	2 <sup>nd</sup> Half 2014
Modification of Purge Oil Tank (T3)	2 <sup>nd</sup> Quarter 2015
Modification of Martin Terminal stormwater system for piping outside of secondary containment.	2 <sup>nd</sup> Half 2015

Other than the upgrades identified above, this SPCC Plan conforms to the requirements contained in 40 CFR 112. If alternate spill prevention, control or countermeasures are used at this facility, the alternate measure(s) will be discussed in the appropriate section(s) that follow.

### **C. BULK STORAGE AND NON-BULK STORAGE CONTAINERS**

#### **Bulk Storage Containers**

The Martin Terminal has three storage tanks storing No. 6 fuel oil, one tank containing mineral oil, and three small tanks containing No. 2 diesel fuel. A listing of all storage containers, their contents and capacities are provided in Tables II-10 and II-11. Figures II-6 and II-6A provide the location of these bulk containers. (b) (7)(F), (b) (3)

. The Martin Terminal has two large No. 6 fuel oil storage tanks, which are each contained within earthen dikes. The bulk storage tanks, which are labeled as A and B, each have

(b) (7)(F), (b) (3)

Tanks A and B and the purge oil tank have overfill protection installed which consists of a mechanical float style, high (purge oil tank), high and high-high (Tanks A and B) level alarm system with an automatic shutdown designed to trip the transfer pumps and close the delivery valve and tank inlet valve. (b) (3), (b) (7)(F)

. The storage tank alarms undergo a monthly reliability check and are tested on an annual basis. The high-high trip is tested annually. (b) (3), (b) (7)(F)

Storage Tank Fill & Alarm Levels	Maximum Fill	High Level Alarm	High-High Level Alarm	Overflow
----------------------------------	--------------	------------------	-----------------------	----------

(b) (3), (b) (7)(F)

There are three small above ground storage tanks at the Martin Terminal as follows.

(b) (7)(F), (b) (3)

Each tank is equipped with a site gauge.

(b) (7)(F), (b) (3)

. The location is indicated on Figure II-6. This tank is equipped with an overfill alarm system to notify the operator to terminate tanker truck unloading operations.

The Martin Terminal is the site location for the Riviera Beach Energy Center (RBEC) compressor station. A double walled condensate tank (T8) with a capacity of 1,000 gallons drains the condensate from all three compressor units. A double walled compressor drain vessel (T9) with a capacity of 600 gallons gravity drains all three compressor units. The drain line for each Unit is located on the North Side of the Unit.

Both the condensate tank (T8) and the compressor drain vessel (T9) are equipped with level indicators and level transmitters set to High Alarm at 90% of the height. The

condensate tank would alarm at approximately 5.4 feet and the compressor drain vessel would alarm at approximately 3.6 feet.

The RBEC Compressor Station bulk storage containers are identified on Figure II-6A.

### **Non-Bulk Storage Containers**

There are three pad mount transformers located on the terminal property. One on the west side of the control building and two on the west side of the oil spill equipment building. The locations are indicated on Figure II-7. There are two transformers located near the RBEC Compressor Station. Each transformer is located within a concrete containment and contains 597 gallons of oil. The locations of these transformers are indicated on Figure II-7A.

There are three compressor units located to the north of the transformers. Each compressor unit contains 128 gallons of oil including the crank case and lube oil cylinder. Each cylinder lubricator contains 5 gallons of oil per unit.

### **Throughput Analysis**

All transformers and compressor units at the terminal serve as operational equipment, and as such, do not use or consume oil. Therefore, there is no daily throughput for these products. The expected average daily throughput of the petroleum products contained onsite is provided below:

<b>PETROLEUM PRODUCT</b>	<b>DAILY THROUGHPUT (GAL)</b>
No. 6 Fuel Oil	1,386,000
Mineral Oil	300
No. 2 Diesel Fuel	1

## ***D. FACILITY LOADING & UNLOADING & FACILITY TRANSFER OPERATIONS***

### **Vessel/Pipeline Transfer Operations**

The Martin Terminal, located in West Palm Beach, receives bulk deliveries of No. 6 fuel oil from a 3.5-mile underground pipeline from ocean-going tankers or barges which moor to one of two unloading facilities within the Port of Palm Beach. Using the ship's unloading pumps, the oil is pumped into one of two large fuel oil storage tanks at the Martin Terminal where the oil is stored and later transferred to the Martin Plant. No. 6 fuel oil is delivered to the Martin Plant by a 36-mile; 18-inch underground pipeline from the Martin Terminal.

### **Tank Truck Unloading Operations**

The tank truck unloading procedures at the Martin Terminal meet the minimum requirements and regulations established by the Department of Transportation (DOT). Fuel transfer operations occur through aboveground unloading hoses. The hoses are designed to minimize abrasion during transfer operations.

There is one tank truck unloading area for mineral oil. See Figure II-6 for its location. The tank truck unloading area is provided within a curbed concrete area that drains to the oily water basin, which has the capacity to contain the largest compartment of a tank truck which delivers fuel to the site. The contents of the oily water basin are pumped through an oil-water separator and the collected oil is pumped back to the #6 fuel oil storage tank.

The condensate tank (T8) and the compressor drain vessel (T9) are inspected weekly and pumped down as needed by the vendor.

The compressor drain vessel (T9) shall be drained when the oil level reaches approximately 55 gallons of oil.

To prevent vehicles from departing before disconnection of flexible or fixed oil transfer lines, spill prevention techniques provide for:

- The setting up of barriers or warning signs to prevent a truck from leaving before the completion of unloading.

- Placing wheel chocks on truck tires to prevent vehicle movement during unloading.
- Closely inspecting lowermost drain & all outlets for discharges
- Ensuring truck drains/outlets are tightened, adjusted or replaced as needed

Measures taken to prevent spills prior to, during, and after unloading include:

- Prior to unloading: Oil levels are verified, connections are rechecked, and hoses are examined for integrity. Signs are posted warning all vehicular traffic operating in transfer area to use caution.
- During unloading: Only trained personnel authorized to conduct the transfer are used. The transfer and pumping system is continually monitored for leaks and the oil level in the receiving container is frequently monitored to prevent overfilling.
- After unloading: The transfer hose is properly drained and disconnected and all tank truck drains and connections are checked for proper closure prior to departure.

#### ***E. CONTAINMENT AND DIVERSIONARY STRUCTURES***

The Martin Terminal is operated seven days a week, 24-hours per day. Operators conduct frequent inspections of all oil storage and transfer areas and are available to respond immediately to any potential or actual release of oil. The terminal also stores a significant amount of oil spill response equipment which is also immediately available for use, should it be needed. To control spills, the terminal employs the following containment and diversionary structures, which are sufficiently impervious to prevent oil spills from reaching navigable waters. These prevention and containment measures are described below.

##### **Containment Structures at Martin Terminal**

Earthen berm secondary containment systems surround bulk oil storage Tanks A and B and the Purge Oil Tank. The berms are constructed of compacted soils and are sufficiently impervious to contain a spill of No. 6 fuel oil due to the high viscosity of this product and FPL's rapid response capability. A concrete secondary containment system surrounds the mineral oil storage tank. The 300-gallon fire pump tank and the 473-gallon pilot tank are double-walled construction. The 100-gallon emergency generator tank is contained within a building. See Figure II-12 for other curbed areas

and drains that are diverted to the Oily Water basin, which provides secondary containment prior to being routed to an oil water separator.

Each compressor unit is contained within a building and provided with a 3-inch gravity drain line that drains into the compressor drain vessel. Each compressor unit has multiple lines (coolers, compressor drain, inlet and outlet filter separator) that tie-in to a common 3-inch condensate line that drains into the condensate tank. The compressor drain vessel provides secondary containment for the operational equipment within each compressor unit. The 3-inch gravity drain line drains any lube oil from each unit and the 3-inch condensate line drains water and hydrocarbons from each unit. The condensate tank and the compressor drain vessel are double walled construction. Figure II-12A identifies the drainage plan for the RBEC compressor station located at the Martin Terminal.

The Sailfish Substation is located to the south of the dry retention pond. The substation is a fenced in area addressed in an individual spill prevention countermeasure and control plan. The substation drains north into the dry retention pond. The oil containment pit and runoff generated on the substation yard reach a drainage structure with an 8 inch oil stop valve intended to avoid dissipation of oil in an event of a transformer or regulator failure. Drainage from the substation into the dry retention pond is controlled by an 8 inch flanged gate valve. The Sailfish Substation is operated by Power Delivery Division of FPL; See SPCC for Sailfish Substation for details.

### **Transformer Protection Systems**

Most transformers and breakers are protected by relays that are capable of clearing faults before serious structural damage to the equipment can result. In addition, the danger of pressure building up inside a tank to the point of rupture is virtually eliminated by the addition of mechanical pressure relief devices. These devices are spring-loaded diaphragms mounted directly on the transformer tank that remains sealed during normal operations. If pressure begins to build in the tank for any reason, this pressure pushes open the relief device, which has been calibrated to open only upon reaching a certain pressure (6 PSI), and relieves excess pressure and the resultant strain on the tank. Low



oil level alarms give an indication that immediate action is necessary. In such cases, personnel investigate the situation as quickly as possible.

## Piping

Some of the aboveground piping is inside secondary containment. The locations are shown on Figure II-17. Figure II-17 and Figure II-18 will be revised to reflect the addition of compressor station, renovation of the purge oil tank and modernization of the Riviera Plant.

Some of the aboveground piping is located outside of secondary containment. To contain spills which may occur from these piping systems, the grading and drainage systems at the Martin Terminal facility and the No. 6 Fuel Transfer Yard at the Port of Palm Beach will be modified to confine oil within the facility catchments and basins.

TABLE X-1				
LISTING OF BULK OIL STORAGE TANKS & CONTAINMENT CAPACITIES				
Bulk Storage Container (location)	Type of Oil	Volume of Container	Capacity of Secondary Containment	Description of Containment
Tank A	No. 6 Fuel Oil	(b) (7)(F), (b) (3)		Earthen Dike
Tank B	No. 6 Fuel Oil			Earthen Dike
Purge Oil Tank (Temporarily Out of Service)	No. 6 Fuel Oil			Earthen Dike
Mineral Oil Tank	Mineral Oil			Concrete Containment
Fire Pump Tank	No. 2 Diesel Fuel			Double-wall Tank
Emergency Generator Tank	No. 2 Diesel Fuel			Located within Building
Pilot Tank	No. 2 Diesel Fuel			Double-wall Tank
Condensate Tank	Hydrocarbons			Double Wall Tank
Compressor Drain	Lube Oil			Double Walled

TABLE X-1				
LISTING OF BULK OIL STORAGE TANKS & CONTAINMENT CAPACITIES				
Bulk Storage Container (location)	Type of Oil	Volume of Container	Capacity of Secondary Containment	Description of Containment
Vessel				

#### **F. DISCHARGE PREVENTION MEASURES**

The Martin Terminal employs the following prevention and containment measures to reduce the likelihood of a release of oil from occurring from any of the bulk storage or non-bulk storage containers located at the terminal. These prevention measures are summarized below:

**(b) (3), (b) (7)(F)**

- Secondary containment has been constructed around all of the bulk storage tanks at the terminal.
- Transfer lines have been equipped with closure valves which isolate the pipeline in short segments.
- Pipeline supports have been designed to minimize abrasion and corrosion.
- Regular inspection procedures have been instituted to detect problems before they cause an oil spill incident (see Appendix C).
- Warning signs to advise all vehicular traffic operating in pipeline areas to use caution.
- Terminal personnel have been trained to use standard procedures during off loading operations.
- For tanks A and B and the purge oil tank, overflow protection is provided by means of a "pie pan" in the overflow pipe. Upon tripping of the pipe pan, two manually reset solenoid valves on the fuel oil transfer valve will trip and close the fuel oil stop valve. This in turn stops the pump.
- Tank trucks are inspected prior to unloading and after receipt.
- Specific supplies of oil spill response equipment have been selected, purchased, and stored at the Martin Terminal for immediate use.

- Aboveground tanks at the terminal are visually inspected monthly by operating personnel for signs of deterioration or leaks.
- Containment is provided for certain terminal drains and storm water discharge points.
- Valves are routinely inspected by terminal personnel.
- Only trained personnel are used in the transfer operations.
- Drain valves on tanks at the terminal are locked in closed position.
- Starter controls on all oil pumps at the terminal are located inside the fenced perimeter of the terminal and are accessible only to authorized personnel.
- A 8" flanged gate valve controls drainage from the Sailfish Substation.
- Both transformers at the compressor station shall have drain valves on the concrete containment which are kept locked in a closed position.
- **(b) (3), (b) (7)(F)**
- A chain link security fence surrounds the entire site to meet safety and security requirements.
- All entrance gates at the terminal remain closed and the terminal is manned 24 hours per day, 365 days per year.
- Adequate lighting has been installed at the terminal to permit surveillance of each facility.
- The terminal has an in-house team of oil spill response personnel.
- Pipeline leak detection practices are outlined in Section 4.0 Abnormal/Emergency Procedures, of the Martin Terminal Operations and Maintenance Manual.

## **G. OTHER EFFECTIVE DISCHARGE PREVENTION & CONTAINMENT PROCEDURES**

### **State of Florida Storage Tank Regulation**

The State of Florida has promulgated a rule governing the construction, operation and maintenance of aboveground and underground storage tank systems. The intent of the rule is to minimize the occurrence and environmental risk of releases from these tank systems by requiring the installation of overfill prevention, secondary containment, release prevention barriers, and release detection systems as discussed in Section X.C

above. The rule also requires that inspections be performed on storage tank systems, including their components. A more detailed discussion on inspections is provided in Section X.L below.

#### ***H. FACILITY DRAINAGE***

Figures II-12 and II-12A show the facility drainage system of the facility. Figure II-13 and II-13A indicate potential spill pathways, which can be useful in preventing the spread of a release, should one occur.

##### **Drainage from Diked Areas**

All major oil handling equipment, including pumps, strainers, meters, launcher/receiver barrels, and the truck unloading area are located on concrete, paved and curbed areas, which gravity drain to the oily water basin. Stormwater collected in the oily water basin is processed through an oil water separator and a low API gravity separator prior to discharge to the Riviera Municipal treatment system. The secondary containment structures within the No. 6 Fuel Transfer Yard at the Port of Palm Beach currently drain to a sump and to a frac tank. A new oil water separator will be installed, and effluent from the new oil water separator will discharge to one of the RBEC stormwater ponds.

The RBEC compressor station, including units, tanks, transformers, and separators are located on concrete and curbed areas which drain to the compressor drain vessel, condensate tank or contained with a manual valve.

##### **Drainage from Undiked Areas**

General site drainage at the Martin Terminal flows to a canal system located on the west and south sides of the facility. Oil booms are permanently maintained at three points in this canal system to contain any potential spills from the immediate terminal area.

All stormwater from the compressor station drains south to the dry retention pond. An earthen berm is located on the east side of the compressor station to prevent flow of water off site into the I-95 corridor. The earthen berm shall contain drainage and runoff from the compressor station within the facility.

Stormwater runoff from No. 6 Fuel Transfer Yard at the Port of Palm beach flows off site or towards the RBEC. This area will be regraded to prevent the stormwater runoff from discharging off site.

Some of the aboveground piping is located outside of secondary containment. To contain spills which may occur from these piping systems, the grading and drainage systems at the Martin Terminal facility and the No. 6 Fuel Transfer Yard at the Port of Palm Beach will be modified to confine oil in the facility catchments and basins.

## ***I. DISCHARGE POTENTIAL***

The Martin Terminal stores significant quantities of oil which creates a potential for a release due to equipment failure (i.e., tank overflow, rupture, or leakage). Table X-2 lists the storage tanks and identifies their capacities and the types of oil normally stored. This table also identifies the secondary containment structure for each tank. All of the fuel oil storage tanks are provided with secondary containment structures to prevent, in the event of equipment failure, the spill from reaching navigable water. Figure II-13 and Figure II-13A depicts the potential flow-paths due to equipment failure.

### **Release Predictions (assuming no secondary containment or diversionary structures)**

#### **1. Postulated Failure of Bulk Oil Storage Tanks A and B:**

Figure II-13 illustrates that spilled fuel oil would spread into a drainage canal. A release rate could vary substantially from a small release of 1 gallon per minute to an instantaneous release of the entire tanks' contents (see Table X-1 for storage tank capacities).

#### **2. Postulated Failure of Purge Fuel Oil Storage Tank (Temporarily Out of Service):**

Figure II-13 illustrates that spilled fuel oil from the purge fuel oil storage tank would flow into the drainage canal. All spilled oil would be fully contained. A release rate could vary substantially from a small release of 1 gallon per minute to an instantaneous release of the entire tanks' contents (see Table X-1 for storage tank capacities). Currently, Purge Oil Tank is out of service.

Release predictions for other sources of oil in the terminal are provided in Table X-2.

Figure II-13A illustrates the spilled oil from the compressor units would flow into the retention pond. Figure II-12A illustrates that oil leaking or spilled within a compressor unit shall drain to the compressor drain vessel. The compressor drain vessel is capable of containing all oil from an individual compressor unit.

TABLE X-2				
RELEASE PREDICTIONS				
SOURCE	TYPE OF FAILURE	VOLUME	RATE	DIRECTION OF FLOW
Mineral Oil Tank	Leakage; Overfill	(b) (7)(F), (b) (3)	Rates vary up to 210,000 G/hr	North
Fire Pump	Leakage; Overfill		Rate vary up to 300 G/hr	West to drainage canal
Emergency Generator Sub Base Tank	Leakage; Overfill		Rate vary up to 100 G/hr	North or East
Boiler Pilot Tank	Leakage; Overfill		Rate vary up to 473 G/hr	North or East
Tank Truck Unloading Area	Hose, Mechanical Connection		Rates vary up to 5,000 G/hr	North
Condensate Tank	Leakage; Overfill		Rates vary up to 1000 G/hr	North or East
Compressor Drain Vessel	Leakage; Overfill		Rates vary up to 600 G/hr	North or East

#### **J. DISCHARGE REPORTS**

Should the facility experience a reportable oil spill (i.e. to “navigable waters”), a spill report form is prepared, according to the format presented in Figure IV-1. The spill report provides a description of the incident including date, time, and cause of the spill. The report also addresses corrective actions taken as well as measures necessary to prevent a recurrence. Copies of any future spill reports will be incorporated into this plan in Appendix I. A report of an incident will be submitted to the EPA Region IV Regional Administrator and the State of Florida Bureau of Emergency Response, if any of the following criteria are met:

- Should the facility discharge more than 1,000 U.S. gallons of oil in a single discharge to navigable waters; or
- More than 42 U.S. gallons of oil in each of two discharges to navigable waters occurs within any twelve-month period.

## K. INTEGRITY TESTING & BRITTLE FRACTURE EVALUATION

### Storage Tanks

American Petroleum Institute (API) Standard 653, titled “*Tank Inspection, Repair, Alteration and Reconstruction*” is used to conduct internal and external integrity testing and brittle fracture analysis of the field-erected oil storage tanks at Martin Terminal. All secondary containment areas will contain the entire contents of the largest tank with an allowance for accumulation of precipitation. Each field-erected tank was hydrostatically tested for leakage and foundation strength on installation. Routine visual inspections for leaks, cracking, corrosion, coating failures, foundation condition, etc. are conducted on a monthly basis as described in the Appendix C Inspections and Records. Internal and external inspections of field-erected tanks are performed in accordance with recommendations contained in API-653 utilizing a third party contractor.

Each field-erected tank will also undergo an external inspection in accordance with API 653 every five years in addition to a monthly visual inspection as described in the next section. Internal inspections are scheduled not to exceed every 20 years. A history of the external and internal inspections conducted on these tanks is provided below along with the next required inspection date for Martin Terminal:

Tank Number	External Inspection		Internal Inspection	
	Last	Next	Last	Next
Tank A	2009	2014	1998	2018
Tank B	2009	2014	2012	2032
Mineral Oil Tank	2009	2014	1999	2019
Purge Oil Tank (Temporarily Out of Service)	2009	2014*	2012	2022*
Note: * Purge Oil Tank is temporarily out of service, and tank out of service inspection was done on 2012. Purge Oil Tank will be modified/ improved before it goes back to service in 2014. The external inspection will be 5 years from 2014, and the internal inspection will be done 10 years from 2014.				

The Martin Terminal AST's have been exposed to the post construction hydrostatic test without failure, they have been exposed to the maximum fill level and coldest operating

temperature, and based on the subtropical climate and operating temperature of the fuels stored, it would be unlikely that a tank would see a shell temperature that could cause brittle fracture. Additionally, all of the Martin Terminal AST's have received their baseline API 653 inspections and are certified to operate for the current product service. There is no change of product service planned for any of the tanks based on the fuel consumption requirements of the facilities they serve. Therefore, based on the API 653 standard and the current service of the Martin AST's that they are not likely at risk of brittle fracture.

The facility typically does not perform field repairs on the aboveground tanks/containers that reduce their integrity. The tanks and containers are structurally sound and generally do not require field repairs.

Integrity testing will not be performed on double-wall aboveground shop fabricated tanks, drums, or totes. The single wall emergency generator tank is on the daily rounds list, and is checked twice during each 12 hour shift. Drums and totes will have a service life of less than 10 years and therefore will not require integrity testing. Since the double wall, shop-fabricated tanks are visually inspected monthly, supported above concrete secondary containment and pose a low risk of internal corrosion, no additional internal integrity testing is deemed necessary.

The compressor drain vessel is double walled and consists of a 4 inch standpipe connection to the outer shell of the tank. Operators shall routinely inspect the stand pipe for water and integrity of the double wall. Monitoring between the walls shall occur with the 4 inch stand pipe.



## **Piping Systems**

Inspection of the piping will occur on a monthly basis. Inspection forms are in Appendix C.

### ***L. INSPECTIONS***

#### **Storage Tanks and Piping**

The bulk storage tank, its associated piping, along with other containers and drums containing oil, and their secondary containment areas are visually inspected monthly for the following items as may be appropriate:

- Container foundation
- Container shell condition
- Tank level control and alarm system
- Piping flange or expansion joints
- Piping valve glands and bodies
- Piping supports
- Piping condition
- Oil leaks of any type
- Locking of valves
- Condition of secondary containment
- The presence of oil sheen and excessive rainwater in secondary containment systems

All substantial discrepancies will be reported immediately to the appropriate supervisor. If any tank discrepancies are found, facility operations that are associated with the tank will be shut down and any equipment that would be affected would be secured. The discrepancies would be repaired. The condensate tank and compressor drain vessel shall be inspected on a weekly basis for level of lube oil or hydrocarbons. Both tanks shall be pumped out as needed. The compressor drain vessel shall be emptied when filled to approximately 55 gallons.

## **Oil-Filled Electrical Equipment**

The transformers are scheduled on a regular basis to be inspected for the following items:

- Oil levels
- Oil gauges
- Oil leaks of any type
- Transformer tank pressure
- Alarm system
- Transformer temperatures
- Moisture conditions
- Transformer containment

## **Inspection of Facility Oil Spill Response Equipment**

Facility response equipment is routinely inspected and tested to ensure that all equipment is operational, properly maintained, including appropriate level of inventories, is readily accessible and is immediately available in the event it is needed. Response equipment inspections are conducted during quarterly preventative maintenance schedules. All equipment is maintained in good operating condition in accordance with manufacturer's recommendations.

Any discrepancies noted during the inspection are corrected and the equipment is returned to its normal storage location. The terminal maintenance supervisor is the designated, facility representative responsible for the equipment maintenance and testing.

## **Inspections and Records**

A strict inventory control of all products contained in containers and all electrical equipment is maintained. Transformer operation is monitored from the control room. In addition, the transformers are checked for leaks two times per 12 hour shift. If a transformer fails, the incident would be registered at the terminal control room and terminal operations would investigate for any release of oil. Secondary containment areas are also inspected for leaks or accumulated oil.

Visual inspections of storage tanks, containers, and electrical equipment are conducted as a part of the regular facility inspection program. These inspections follow written guidelines and are documented in inspection logs. Copies of these inspection procedures and record forms are presented in Appendix C of this Plan. These inspection records are maintained for a minimum of 3 years and are available from the Environmental Specialist.

The retention pond shall be inspected regularly for any sheen or oil.

### ***M. SITE SECURITY***

(b) (7)(F), (b) (3)





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**SECTION XI:****HAZARD EVALUATION**

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**A. OVERVIEW**

A Hazard Evaluation is an analysis of a facility's operation to determine where releases could potentially occur. The information obtained from the analysis can be used to provide a basis to set priorities for contingency planning and the development of specific response actions to potential releases. In addition, the Hazard Evaluation serves to identify areas where improvements may prevent releases from occurring.

The Hazard Evaluation consists of three basic components:

(b) (7)(F), (b) (3)

**B. HAZARD IDENTIFICATION**

The Hazard Identification component provides information on the facility operations that have potential to cause damage from a release of oil. This information can be used to correct potential spill related conditions, thereby reducing the severity of discharge impacts that may occur in the future. This section includes information as may be appropriate on oil storage tanks, loading and unloading of tank trucks and vessels, containment volume analysis, and throughput variability analysis.

Hazard identifications of the oil storage tanks at the Martin Terminal are included in Table XI-1. Hazard identification for surface impoundments is included in Table XI-2. These tables contain information on the type of product stored, quantity stored, maximum tank capacity, type of tank, year built, and any failure modes which have occurred. Significant Materials Inventory is listed in Table XI-3. Figure XI-1 indicates hazardous materials storage locations at the terminal. Figure XI-1A indicates hazardous materials storage location for the RBEC Compressor Station at the Martin Terminal.

TABLE XI-1					
MARTIN TERMINAL OIL STORAGE TANKS					
TANK NUMBER	SUBSTANCE STORED	AVERAGE QUANTITY STORED (GAL)	TANK TYPE/YEAR	MAXIMUM CAPACITY (GAL)	FAILURE/ CAUSE
Tank A	No. 6 Fuel Oil	(b) (7)(F), (b) (3)	AST/FR 1980	(b) (7)(F), (b) (3)	None
Tank B	No. 6 Fuel Oil		AST/FR 1980		None
Purge Oil Tank (Temporarily Out of Service)	No. 6 Fuel Oil		AST/FR 1980		None
Mineral Oil Tank	Mineral Oil		AST/FR 1980		None
Fire Pump Tank	No. 2 Diesel Fuel		AST/FR 1980		None
Emergency Generator Tank	No. 2 Diesel Fuel		AST/FR 1980		None
Pilot Tank	No. 2 Diesel Fuel		AST/FR 1980		None
Condensate Tank	Hydrocarbons		AST 2013		None
Compressor Drain Vessel	Lube Oil		Underground Vessel 2013		None
Note: AST = Aboveground Storage Tank FR = Fixed Roof SF = Shop Fabricated					

TABLE XI-2					
HAZARD IDENTIFICATION MARTIN TERMINAL SURFACE IMPOUNDMENTS					
Basin	SUBSTANCE STORED	QUANTITY STORED (GAL)	SURFACE AREA/YEAR	MAXIMUM CAPACITY (GAL)	FAILURE/ CAUSE
Oily Water Basin	Oily Water	(b) (7)(F), (b) (3)	500 SF/1980	(b) (7)(F), (b) (3)	None

TABLE XI-3			
MARTIN TERMINAL SIGNIFICANT MATERIALS INVENTORY			
LOCATION	MATERIAL	MAXIMUM QUANTITY	UNITS
Paint Shed	Paint	30	Gal
	Lube Oil	20	Gal
	Hydraulic Fluid	50	Gal
	Diesel Fuel	10	Gal
	Gasoline	15	Gal
Propane Tank	Propane	500	Gal
Carbon Dioxide Tanks (7 tanks per unit)	Carbon Dioxide	2100	Pounds

### Facility Operations Which May Result in a Discharge

Facility operations, which may result in a spill at the terminal, would include inter-tank transfer operations, maintenance activities on piping and storage tanks, and during barge and tank truck unloading operations.

Maintenance activities on the compressor units, inlet separator, and outlet separator may result in a spill at the terminal.

Unloading of the condensate and compressor drain sump tank may result in a spill at the terminal.

### Barge Unloading Operation

Martin Terminal handles one product by vessel: No 6 fuel oil. This product is delivered by ocean-going tankers which are not owned by FPL. Martin Terminal typically receives



approximately 30 shipments of No. 6 fuel oil per year. Each shipment contains, on average, approximately 140,000 barrels of No. 6 fuel oil.

Vessel transfer procedures are described in Section X of this plan.

### **Tank Truck Unloading Operation**

No. 2 fuel oil and mineral oil are unloaded by tank truck at the Martin Terminal. The fuel is pumped into the appropriate storage tanks by trained terminal personnel. Both products are delivered infrequently.

Spill prevention techniques include setting up barriers to prevent a truck from leaving before the completion of unloading and the checking of tank drains and connections prior to departure. Additionally, hoses are visually inspected and all appropriate valves are opened prior to transferring product.

### **Inter-Tank Transfers**

Approximately 5 inter-tank transfers occur per year at the Martin Terminal. Each transfer contains approximately 19,230 barrels of No. 6 fuel.

Facility personnel follow specified procedures when taking oil storage and transfer system equipment out of service for maintenance activities. These procedures are followed to ensure the safe repair of equipment while preventing spills from occurring. During maintenance activities, oil storage components are isolated and or drained, as may be necessary, before any work is started. In addition, the oil transfer piping and storage tanks are inspected both during transfer operations and during other routine inspections. Spill prevention policies, practices and procedures are described in detail in Section X of this plan.

### **Secondary Containment Volume Analysis**

There are four (4) storage tank secondary containment systems and one oily water collection basin at the Martin Terminal.

Table X-1 lists the secondary containment systems and their associated volume.

## **Throughput Analysis**

Section X.C provides approximate daily throughput quantities of petroleum products at the Martin Terminal. A change in daily throughput either positive or negative would not increase the potential for a release of stored product.

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FIGURE XI-1 MARTIN TERMINAL SIGNIFICANT MATERIALS LOCATION MAP

Insert

FIGURE XI-1A RBEC COMPRESSOR STATION SIGNIFICANT MATERIALS LOCATION MAP

### **C. VULNERABILITY ANALYSIS**

In accordance with regulations published under 40 CFR Part 112 of the Oil Pollution Act of 1990 (OPA 90) and Section 311 of the Clean Water Act, the Environmental Protection Agency (EPA) requires operators or owners of all non-transportation onshore facilities to prepare a Facility Response Plan (FRP) in the event of a release. The purpose of the FRP is to develop a plan of response for facilities whose location represents a risk to nearby or adjacent navigable waterways or shorelines. The FRP is then submitted to the EPA Regional Administrator for review and approval.

This Vulnerability Analysis (VA) was prepared for the Martin Terminal and associated pipelines, a Florida Power & Light (FPL) facility, located in Martin and Palm Beach Counties, Florida. The VA addresses the potential effects from an oil release, discussing the risks to human health, property, and the environment. The resources at risk can include drinking water intakes, schools, residential or business areas, endangered flora and fauna, recreational areas, or sensitive environments. The VA focuses on two objectives: a) calculating the planning distance after oil is released from the terminal into a body of water and b) identifying the resources at risk located within the planning distance.

The planning distance was based upon a planning distance of 15 miles as required for tidal influenced waters. The resources at risk were identified using a Geographic Information System (GIS) to evaluate High Consequence Areas (HCAs) and data from the Environmental Sensitivity Index (ESI) for the Intracoastal Waterway (ICW) in Palm Beach County, Florida. HCAs were mapped by the Office of Pipeline Safety (OPS) and made available to industry to support the Pipeline Integrity Management Program. HCAs include:

- Drinking Water Unusually Sensitive Areas (DW USAs)
- Ecological Unusually Sensitive Areas (ECO USAs)

- Highly Populated Areas (HPAs)
- Other Populated Areas (OPAs)
- Commercially Navigable Waters (Navwat)

ESI data include ecological or human-use areas of concern, such as threatened or endangered species, marinas and boat ramps, and wildlife areas.

A visual on-screen assessment using digital HCA and ESI data was conducted to identify resources that may be within the spill trajectory of oil released into the ICW. The resources at risk were then characterized for potential impacts from a discharge based on the oil type, resource type, and location of the resource. The VA documents the methodology used to calculate the planning distance and discusses potential impacts for resources within that distance for oil spill planning and response.

## Methods

### *Planning Distances*

EPA provided the following formula for facility owners or operators to use for calculating the distance that oil may travel after entering moving navigable waters in the event of a spill:

$$d = v * t * c$$

The velocity of the current varies dramatically within the Port of Palm Beach Area near the Martin Terminal and within Lake Worth near the Riviera Power Plant.

Between the Lake Worth Inlet jetties, the average tidal velocity is 4 feet/second (ft/sec) for the flood tide and 6 ft/sec for the ebb tide. Further south in Lake Worth near Currey Park, the cross sectional average tidal velocity is 0.85 ft/sec on the flood tide and 1.05 ft/sec on the ebb tide. This varies greatly depending on freshwater discharges from the Earman River north on the Port and the West Palm Beach Canal south of the Port.

The time allowing for the arrival of response personnel and resources at the scene of discharge was estimated to be 27 hours. This accounts for a 24-hour arrival time and a

3-hour deployment delay. Time estimates were based on EPA specified time intervals for different operating areas (Table XI-4).

TABLE XI-4	
SPECIFIED RESPONSE TIME INTERVALS	
Operating Areas	Substantial Harm Planning Time (hours)
Higher volume port areas	12 hour arrival + 3 hour deployment = 15 hours
Great Lakes	24 hour arrival + 3 hour deployment = 27 hours
All other rivers, canals; inland and nearshore areas	24 hour arrival + 3 hour deployment = 27 hours

Using the formula provided by EPA ( $d = v \cdot t \cdot c$ ), the distance that oil could potentially flow downstream, once entering the Port of Palm Beach from the Martin Terminal Pipelines, was 110.0 miles ( $6.0 \text{ ft/sec} \cdot 27 \text{ hours} \cdot 3,600 \text{ minutes/hour (min/hr)} = 583,200 \text{ feet or } 110.0 \text{ miles}$ ). The EPA only requires a planning distance of 15 miles.

### Water Intakes

(b) (7)(F), (b) (3)

### Schools

Table XI-5 lists all of the schools within 15 miles of the Martin Terminal.

TABLE XI-5			
AREA SCHOOLS			
NAME	STREET ADDRESS	CITY	DISTANCE (MILES)
(b) (3), (b) (7)(F)		Riviera Beach	0.8
		West Palm Beach	1.1
		Riviera Beach	1.6
		Riviera Beach	2.2
		Lake Park	2.5
		Palm Beach Gardens	2.6
		West Palm Beach	3
		Lake Park	3.3
		West Palm Beach	3.6
		West Palm Beach	3.7



TABLE XI-5			
AREA SCHOOLS			
NAME	STREET ADDRESS	CITY	DISTANCE (MILES)
(b) (3), (b) (7)(F)		Palm Beach Gardens	4.0
		Palm Beach Gardens	4.3
		West Palm Beach	4.5
		North Palm Beach	5.1
		West Palm Beach	5.4
		Palm Beach	5.6
		Haverhill	5.8
		West Palm Beach	6.7
		West Palm Beach	7.3
		West Palm Beach	7.3
		Juno Beach	7.4
		Juno Beach	7.4
		West Palm Beach	7.5
		Royal Palm Beach	8
		West Palm Beach	8.2
		West Palm Beach	8.4
		West Palm Beach	9.6
		Greenacres	9.7
		Lake Worth	9.8
		Greenacres	9.9
		Royal Palm Beach	10.6
		Lake Worth	10.7
		Jupiter	11
		Jupiter	11
		Wellington	11.6
		Loxahatchee	11.6
		Loxahatchee	13.1
		Wellington	13.1
		Lantana	13.5
		Lake Worth	13.8

TABLE XI-5			
AREA SCHOOLS			
NAME	STREET ADDRESS	CITY	DISTANCE (MILES)
(b) (3), (b) (7)(F)	(b) (3), (b) (7)(F)	Boynton Beach	14.1
		Jupiter	14.6
		Lake Worth	15

Any evacuation efforts for these schools, should evacuation become necessary, will be coordinated with the appropriate local emergency assistance agencies (police department, fire department, etc.).

### Medical Facilities

Table XI-6 lists all of the medical facilities within 15 miles of the Martin Terminal.

TABLE XI-6			
AREA MEDICAL FACILITIES			
NAME	STREET ADDRESS	CITY	DISTANCE (MILES)
(b) (3), (b) (7)(F)	(b) (3), (b) (7)(F)	West Palm Beach	0.6
		West Palm Beach	0.9
		Riviera Beach	1.2
		Palm Beach Gardens	2.7
		West Palm Beach	1.9
		West Palm Beach	2.1
		West Palm Beach	2.3
		West Palm Beach	4.2
		Palm Beach Gardens	4.3
		Royal Palm Beach	7.9
		Royal Palm Beach	8.7
		Tequesta	9.3
		Lake Worth	9.8
		Greenacres	10.3
		Wellington	10.5

TABLE XI-6			
AREA MEDICAL FACILITIES			
NAME	STREET ADDRESS	CITY	DISTANCE (MILES)
(b) (3), (b) (7)(F)		Jupiter	10.6
		Loxahatchee	11.2
		Jupiter	11.4
		Lake Worth	12.5
		Jupiter	11.4
		Jupiter	11.6
		Lake Worth	11.8
		Lantana	12.7
		Jupiter	14.3

### Residential Areas

Residential facilities near the Port of Palm Beach include a residential community adjacent to the south side of the docks. Near the Martin Terminal there are no residential areas.

### Businesses

Businesses near the Port of Palm Beach include a large industrial park located across US Highway 1 west of the plant and Lake Worth and Palm Beach located to the east of the Plant. Businesses are located west and south of the Martin Terminal.

### Transportation Routes (Air, Land, and Water)

The transportation routes that could be impacted from a spill or a fire at the facility include Interstate 95, at the Martin Terminal, or US Highway 1, at the Port of Palm Beach. Any evacuation efforts necessary for these areas will be coordinated with the

local emergency agencies (police department, fire department, etc.) and other agencies as the situation demands.

### **Wetlands and Other Sensitive Areas**

The most environmentally sensitive areas are north and south of the Port within Lake Worth Lagoon. Extensive mangrove lined shores do exist within northern Lake Worth around John D. MacArthur Beach State Park (i.e., the Munyon Island Area).

### **Lakes and Streams**

Lake Worth lagoon around the Port area is greatly influenced by direct tidal access the Atlantic Ocean through Lake Worth inlet. Most of the shoreline within the Lake Worth area is bulkheaded. No significant areas of shoreline vegetation (i.e., mangroves) exist within the immediate area around the Port; however, mangrove shorelines exist north and south along Lake Worth distant from the Port Area. Other types of shorelines include sandy (the largest sandy shoreline surrounds Peanut Island, a spoil island within the lagoon at the inlet) and riprap (i.e., rock rubble).

### **Threatened and Endangered Species and Other Wildlife**

Parks and docks listed in Table II-6 are important to protect from oil spills since they may be the habitat for endangered or threatened species. Table XI-7 lists the species on the federally threatened or endangered species list in the state of Florida and may be found in the vicinity of the Martin Terminal and pipeline.

TABLE XI-7		
THREATENED AND ENDANGERED SPECIES IN FLORIDA		
STATUS	COMMON NAME	SCIENTIFIC NAME
ANIMALS (46 Different Species)		
E	Sturgeon, shortnose	( <i>Acipenser brevirostrum</i> )
E	Three-ridge, fat	( <i>Amblema neislerii</i> )
E	Sparrow, Cape Sable seaside	( <i>Ammodramus maritimus mirabilis</i> )
E	Sparrow, Florida grasshopper	( <i>Ammodramus savannarum floridanus</i> )
E	Whale, right	( <i>Balaena glacialis (incl. australis)</i> )
E	Whale, finback	( <i>Balaenoptera physalus</i> )
E	Wolf, red	( <i>Canis rufus</i> )

TABLE XI-7		
THREATENED AND ENDANGERED SPECIES IN FLORIDA		
STATUS	COMMON NAME	SCIENTIFIC NAME
E	Sea turtle, green	( <i>Chelonia mydas</i> )
E	Crocodile, American	( <i>Crocodylus acutus</i> )
E	Sea turtle, leatherback	( <i>Dermochelys coriacea</i> )
E	Sea turtle, hawksbill	( <i>Eretmochelys imbricata</i> )
E	Darter, Okaloosa	( <i>Etheostoma okaloosae</i> )
E	Butterfly, Schaus swallowtail	( <i>Heraclides aristodemus ponceanus</i> )
E	Pocketbook, shinyrayed	( <i>Lampsilis subangulata</i> )
E	Sea turtle, Kemp's ridley	( <i>Lepidochelys kempii</i> )
E	Moccasinshell, Gulf	( <i>Medionidus penicillatus</i> )
E	Moccasinshell, Ochlockonee	( <i>Medionidus simpsonianus</i> )
E	Whale, humpback	( <i>Megaptera novaeangliae</i> )
E	Vole, Florida salt marsh	( <i>Microtus pennsylvanicus dukecampbelli</i> )
E	Seal, Caribbean monk	( <i>Monachus tropicalis</i> )
E	Stork, wood	( <i>Mycteria americana</i> )
E	Bat, gray	( <i>Myotis grisescens</i> )
E	Woodrat, Key Largo	( <i>Neotoma floridana smalli</i> )
E	Deer, key	( <i>Odocoileus virginianus clavium</i> )
E	Rice rat	( <i>Oryzomys palustris natator</i> )
E	Mouse, Key Largo cotton	( <i>Peromyscus gossypinus allapaticola</i> )
E	Mouse, Choctawhatchee beach	( <i>Peromyscus polionotus allophrys</i> )
E	Mouse, St. Andrew beach	( <i>Peromyscus polionotus peninsularis</i> )
E	Mouse, Anastasia Island beach	( <i>Peromyscus polionotus phasma</i> )
E	Mouse, Perdido Key beach	( <i>Peromyscus polionotus trissyllepsis</i> )
E	Woodpecker, red-cockaded	( <i>Picoides borealis</i> )
E	Pigtoe, oval	( <i>Pleurobema pyriforme</i> )
E	Panther, Florida	( <i>Puma (=Felis) concolor coryi</i> )
E	Kite, Everglade snail	( <i>Rostrhamus sociabilis plumbeus</i> )
E	Rabbit, Lower Keys marsh	( <i>Sylvilagus palustris hefneri</i> )
E	Manatee, West Indian	( <i>Trichechus manatus</i> )
T	Sturgeon, gulf	( <i>Acipenser oxyrinchus desotoi</i> )
T	Salamander, flatwoods	( <i>Ambystoma cingulatum</i> )
T	Jay, Florida scrub	( <i>Aphelocoma coerulescens</i> )
T	Sea turtle, loggerhead	( <i>Caretta caretta</i> )
T	Plover, piping	( <i>Charadrius melodus</i> )
T	Sea turtle, green	( <i>Chelonia mydas</i> )

TABLE XI-7		
THREATENED AND ENDANGERED SPECIES IN FLORIDA		
STATUS	COMMON NAME	SCIENTIFIC NAME
T	Snake, eastern indigo	( <i>DryAprilon corais couperi</i> )
T	Slabshell, Chipola	( <i>Elliptio chipolaensis</i> )
T	Bankclimber, purple	( <i>Elliptoideus sloatianus</i> )
T	Skink, bluetail mole	( <i>Eumeces egregius lividus</i> )
T	Eagle, bald	( <i>Haliaeetus leucocephalus</i> )
T	Skink, sand	( <i>Neoseps reynoldsi</i> )
T	Snake, Atlantic salt marsh	( <i>Nerodia clarkii taeniata</i> )
T	Snail, Stock Island tree	( <i>Orthalicus reses (not incl. nesodryas)</i> )
T	Shrimp, Squirrel Chimney Cave	( <i>Palaemonetes cummingi</i> )
T	Mouse, southeastern beach	( <i>Peromyscus polionotus niveiventris</i> )
T	Caracara, Audubon's crested	( <i>Polyborus plancus audubonii</i> )
T	Tern, roseate	( <i>Sterna dougallii dougallii</i> )
PLANTS (54 Different Species)		
E	Lead-plant, Crenulate	( <i>Amorpha crenulata</i> )
E	Pawpaw, four-petal	( <i>Asimina tetramera</i> )
T	Bonamia, Florida	( <i>Bonamia grandiflora</i> )
E	Bellflower, Brooksville	( <i>Campanula robinsiae</i> )
E	Prickly-apple, fragrant	( <i>Cereus eriophorus var. fragrans</i> )
E	Spurge, deltoid	( <i>Chamaesyce deltoidea ssp. deltoidea</i> )
T	Spurge, Garber's	( <i>Chamaesyce garberi</i> )
E	Fringe-tree, pygmy	( <i>Chionanthus pygmaeus</i> )
E	Aster, Florida golden	( <i>Chrysopsis floridana</i> )
E	Cladonia, Florida perforate	( <i>Cladonia perforata</i> )
T	Pigeon wings	( <i>Clitoria fragrans</i> )
E	Rosemary, short-leaved	( <i>Conradina brevifolia</i> )
E	Rosemary, Etonia	( <i>Conradina etonia</i> )
E	Rosemary, Apalachicola	( <i>Conradina glabra</i> )
E	Harebells, Avon Park	( <i>Crotalaria avonensis</i> )
E	Gourd, Okeechobee	( <i>Cucurbita okeechobeensis ssp. okeechobeensis</i> )
E	Pawpaw, beautiful	( <i>Deeringothamnus pulchellus</i> )
E	Pawpaw, Rugel's	( <i>Deeringothamnus rugelii</i> )
E	Mint, Garrett's	( <i>Dicerandra christmanii</i> )
E	Mint, longspurred	( <i>Dicerandra cornutissima</i> )
E	Mint, scrub	( <i>Dicerandra frutescens</i> )

TABLE XI-7		
THREATENED AND ENDANGERED SPECIES IN FLORIDA		
STATUS	COMMON NAME	SCIENTIFIC NAME
E	Mint, Lakela's	( <i>Dicerandra immaculata</i> )
T	Buckwheat, scrub	( <i>Eriogonum longifolium</i> var. <i>gnaphalifolium</i> )
E	Snakeroot	( <i>Eryngium cuneifolium</i> )
T	Spurge, telephus	( <i>Euphorbia telephioides</i> )
E	Milkpea, Small's	( <i>Galactia smallii</i> )
T	Seagrass, Johnson's	( <i>Halophila johnsonii</i> )
E	Beauty, Harper's	( <i>Harperocallis flava</i> )
E	Hypericum, highlands scrub	( <i>Hypericum cumulicola</i> )
E	Jacquemontia, beach	( <i>Jacquemontia reclinata</i> )
E	Water-willow, Cooley's	( <i>Justicia cooleyi</i> )
E	Blazingstar, scrub	( <i>Liatris ohlingerae</i> )
E	Lupine, scrub	( <i>Lupinus aridorum</i> )
T	Birds-in-a-nest, white	( <i>Macbridea alba</i> )
E	Beargrass, Britton's	( <i>Nolina brittoniana</i> )
T	Whitlow-wort, papery	( <i>Paronychia chartacea</i> )
E	Cactus, Key tree	( <i>Pilosocereus robinii</i> )
T	Butterwort, Godfrey's	( <i>Pinguicula ionantha</i> )
E	Polygala, Lewton's	( <i>Polygala lewtonii</i> )
E	Polygala, tiny	( <i>Polygala smallii</i> )
E	Wireweed	( <i>Polygonella basiramia</i> )
E	Sandlace	( <i>Polygonella myriophylla</i> )
E	Plum, scrub	( <i>Prunus geniculata</i> )
E	Rhododendron, Chapman	( <i>Rhododendron chapmanii</i> )
T	Gooseberry, Miccosukee	( <i>Ribes echinellum</i> )
E	Chaffseed, American	( <i>Schwalbea americana</i> )
T	Skullcap, Florida	( <i>Scutellaria floridana</i> )
E	Campion, fringed	( <i>Silene polypetala</i> )
E	Pinkroot, gentian	( <i>Spigelia gentianoides</i> )
E	Meadowrue, Cooley's	( <i>Thalictrum cooleyi</i> )



TABLE XI-7		
THREATENED AND ENDANGERED SPECIES IN FLORIDA		
STATUS	COMMON NAME	SCIENTIFIC NAME
E	Torreya, Florida	( <i>Torreya taxifolia</i> )
E	Warea, wide-leaf	( <i>Warea amplexifolia</i> )
E	Mustard, Carter's	( <i>Warea carteri</i> )
E	Ziziphus, Florida	( <i>Ziziphus celata</i> )
Notes: T indicates federally threatened species. E indicates federally endangered species. Species were listed on federally threatened and endangered species list for the state of Florida as of May 28, 2004.		

### Local Wildlife

The following species are found near the Port of Palm Beach:

#### Least Tern, *Sterna antillarum*

- federally threatened species
- rest along the sandy beaches or feed in the nearshores or estuarine waters

#### West Indian Manatee, *Trichechus manatus latirostris*

- federally endangered marine mammal
- manatees may concentrate within the cooling water discharge
- irritation of skin and mucous membrane surfaces may occur, inhaling vapors may cause irritation of lungs
- manatees may attempt to feed on oiled vegetation or be at risk from collisions with boats or vessels during cleanup activities. Oil exposure impacts to manatees are likely to be transient.

#### Other Wildlife

Animals which use the area include fish, birds, reptiles, and mammals. A total of 195 species of fish have been collected in Lake Worth Lagoon. In the vicinity of Lake Worth Inlet, 261 species have been collected. The inlet functions as an important conduit between the Atlantic Ocean habitats (e.g., offshore reefs) and the lagoon habitats which may, for some species, function as nursery and/or breeding habitat. One such species,



the snook, *Centropomus undecimalis*, is listed as a Species of Special Concern (SSC) by the Florida Game and Freshwater Fish Commission (FGFWFC).

Conspicuous bird species include floating and diving birds, aerially searching birds, and birds of prey. Floating and diving birds include the Double Crested Cormorant (*Phalacrocorax auritus*) and the Brown Pelican (*Pelecanus occidentalis*) (listed as a SSC by the FGFWFC). Aerially searching birds include the Least Tern (*Sterna antillarum*), listed Threatened by the FGFWFC and the U.S. Fish and Wildlife Service (USFWS), and the American Oystercatcher (*Haematopus palliatus*), listed as a SSC by the FGFWFC. Birds of prey include the Osprey (*Pandion haliaetus*).

Reptiles which use the area include the loggerhead (*Caretta caretta*) and green (*Chelonia mydas*) sea turtles. These species enter the lagoon to forage and possibly breed.

Marine mammal species which may be found within the mapped area include the West Indian manatee (*Trichechus manatus latirostris*), which is listed as Threatened by the USFWS and FGFWFC. In the winter, manatees may concentrate in the area around the cooling water discharge.

### **Recreational Areas**

The Lake Work lagoon is the nearest navigable waterway. Figures II-10a, II-10b, and II-10c identify other shorelines that may be of concern.

John D. MacArthur Beach State Park is located along the Intracoastal Waterway North of Riviera Plant. Marinas in the area are listed in Table II-6.

Near the Martin Terminal, recreation areas include the Rapids Water Park, Lone Pine Golf Course, Dyer Boulevard Park, and Big Lake Park.

### **Utilities**

There are no utility companies located near the Martin Terminal.

#### **D. RISK ANALYSIS**

A risk analysis was performed of the Martin Terminal using reliability techniques consisting of a Failure Modes & Effects Analysis (FMEA) and an Error Modes & Effects Analysis (EMEA) to identify potential equipment failures modes and operator errors that could result in spills. These analyses examined the fuel oil unloading system and the onsite storage tanks. The EMEA is presented in Tables XI-8 and XI-9 and the FMEA is presented in Tables XI-10 and XI-11. FMEA and EMEA are both inductive logic tools, which paint pictures of the system being analyzed from the equipment failure (FMEA) and operator error (EMEA) perspectives. FMEA's, which include the equipment components, and EMEA's which include activities or steps in the system operations, are developed using a seven-step process. One of the crucial areas of the analysis is the criticality assessment. The components (FMEA) or activities (EMEA) receiving the highest ranking in the criticality assessment become the priority areas for potential improvements or change. The results of the analyses identify potential countermeasures for spill prevention, which are evaluated for implementation based on their effectiveness and relative costs.

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**TABLE XI-8**  
**ERROR MODES AND EFFECTS ANALYSIS**

PROCESS  
FUNCTION:

FUEL OIL LOADING &  
UNLOADING OPERATION

APRIL 1991

**FUEL OIL UNLOADING AND TRANSFER FROM PORT OF PALM BEACH  
TO MARTIN TERMINAL**

PROCESS  
LEVEL:

OPERATION ASSOCIATED WITH  
LOADING & UNLOADING

ACTIVITY	OPERATION TASK	OPERATION ERROR	CAUSE OF ERROR	COMPONENT INVOLVED	ULTIMATE FAILURE	TIME OF FAILURE	CRITICALITY ASSESSMENT				INSTANT RESPONSE
							PROBABILITY OF OCCURRENCE	RESULT OF FAILURE	OIL SPILLS WHERE	HAZ. RANK	
							(1)	(1)	(1)	(2)	
BEFORE UNLOADING NORTH DOCK	LOWER UNLOADING ARM	ARM CRASHES ONTO DECK	MOVING TOO FAST	UNLOADING ARM	UNLOADING ARM RUPTURE	START OF HOOK UP	MODERATE 4	SMALL TO MODERATE 3	DECK, DOCK, OR WATER 4	48	CONTAIN SPILL
BEFORE UNLOADING SOUTH DOCK	RAISE ARM FROM PIT	ARM CRASHES ONTO DECK	IMPROPER OPERATION	UNLOADING ARM	UNLOADING ARM RUPTURE	START OF HOOK UP	MODERATE 4	SMALL TO MODERATE 3	DECK, DOCK, OR WATER 4	48	CONTAIN SPILL
BEGINNING TO UNLOAD	CONNECT ARM TO SHIP FLANGE	START PUMP TOO SOON	ARM NOT FULLY CONNECTED	UNLOADING ARM	OIL GUSHES OUT LOOSE CONNECTION	PUMP STARTUP	MODERATE 4	MODERATE 4	DECK, DOCK, OR WATER 4	64	STOP PUMPS
BEGINNING TO UNLOAD	OPEN PIPELINE VALVES	OPENED WRONG PIPELINE	DD NOT FOLLOW CHECK LIST	GASKET	FLANGE GASKET LEAKS	PUMP STARTUP	LOW 3	SMALL LEAK 2	DECK, DOCK, OR WATER 3	18	STOP PUMPS
DURING UNLOADING	CHECK ARM POSITION	FAILED TO OBSERVE PROBLEM	IMPROPER POSITION OR ARM	UNLOADING ARM	CRACK OR RUPTURE	DURING UNLOADING	LOW 3	MODERATE TO LARGE 5	DECK, DOCK, OR WATER 4	60	STOP PUMPS
AFTER UNLOADING	CHECK BLIND FLANGE & INSTALL GASKET	FAILED TO CHECK	NOT YET INSTALLED BY TANKERMAN	UNLOADING ARM BLIND FLANGE	OPEN ARM DRAINS	DURING DISCONNECTION	MODERATE 4	SMALL TO MODERATE 3	DECK, DOCK, OR WATER 3	36	MOVE ARM INSIDE CURBING
AFTER UNLOADING	INSTALL BAG OVER BLIND FLANGE	FAILED TO INSTALL	DD NOT FOLLOW CHECKLIST	UNLOADING ARM BLIND FLANGE	FLANGE BOLTS FOULED FROM CEMENT DUST	DURING DISCONNECTION	MODERATE 4	DRIP 1	DECK, DOCK, OR WATER 3	12	INSTALL COVER

(1) RISK NUMBERS SELECTED FOR EACH ITEM, FROM 1 TO 5, WITH 5 AS THE HIGHEST

(3) IMPROPER TRAINING, NOT FOLLOWING PROCEDURES

(2) HAZARD RANKING DETERMINED BY MULTIPLYING NUMBERS OF THREE PREVIOUS COLUMNS

**TABLE XI-8 (cont.)  
ERROR MODES AND EFFECTS ANALYSIS**

**FUEL OIL UNLOADING AND TRANSFER FROM PORT OF PALM BEACH  
TO MARTIN TERMINAL**

ACTIVITY	OPERATION TASK	OPERATION ERROR	CAUSE OF ERROR	COMPONENT INVOLVED	ULTIMATE FAILURE	TIME OF FAILURE	CRITICALITY ASSESSMENT				INSTANT RESPONSE
							PROBABILITY OF OCCURRENCE	RESULT OF FAILURE	OIL SPILLS WHERE	HAZ. RANK	
							(1)	(1)	(1)	(2)	
AFTER UNLOADING NORTH DOCK	SECURE ARM ON DOCK	FAILED TO SECURE	ARM NOT PROPERLY SECURED	UNLOADING ARM	ARM SWINGS INTO TANKER	WHEN NOT IN USE	MODERATE 4	SMALL LEAK 2	DECK, DOCK, OR WATER 3	24	SECURE ARM
AFTER UNLOADING SOUTH DOCK	LOWER ARM INTO PIT	ARM CRASHES ONTO DOCK	IMPROPER BOOM OPERATION	UNLOADING ARM	UNLOADING ARM RUPTURE	AFTER UNLOADING	MODERATE 4	SMALL 3	DECK, DOCK, OR WATER 4	48	CONTAIN SPILL
BEFORE UNLOADING	OPEN STORAGE TANK VALVE	OPENED VALVE ON WRONG TANK	(3)	UNLOADING ARM CRACKS	PRV STORAGE TANK	TANK OVERFLOWS	MODERATE 5	LARGE SPILL 4	INSIDE DIKE 1	20	STOP PUMPS

(1) RISK NUMBERS SELECTED FOR EACH ITEM, FROM 1 TO 5, WITH 5 AS THE HIGHEST

(3) IMPROPER TRAINING, NOT FOLLOWING PROCEDURES

(2) HAZARD RANKING DETERMINED BY MULTIPLYING NUMBERS OF THREE PREVIOUS COLUMNS

**TABLE XI-9  
ERROR MODES AND EFFECTS ANALYSIS**

SYSTEM FUNCTION: FUEL OIL TRANSFER  
OPERATION

SEP 1993

**FUEL OIL TRANSFER FROM MARTIN TERMINAL  
TO MARTIN PLANT**

INDENTURE LEVEL: TRANSFER AND STORAGE  
OPERATION

ACTIVITY	OPERATION TASK	OPERATION ERROR	CAUSE OF ERROR	COMPONENT INVOLVED	ULTIMATE FAILURE	TIME OF FAILURE	CRITICALITY ASSESSMENT				INSTANT RESPONSE
							PROBABILITY OF OCCURRENCE	RESULT OF FAILURE	OIL SPILLS WHERE	HAZ. RANK	
							(1)	(1)	(1)	(2)	
PRIOR TO RECEIVING OIL	OPEN STORAGE TANK VALVE	OPENED VALVE ON WRONG TANK	IMPROPER VALVING	TMR STORAGE TANK	TANK OVERFLOW	DURING RECEIPT	VERY LOW 2	OVERFLOW/ SPILL	SPILLS ON LAND 3	6	ISOLATE TANK, CONTAIN SPILL
PRIOR TO RECEIVING OIL	OPEN STORAGE TANK (TMR/PMR) VALVE	FAILED TO OPEN VALVE	IMPROPER VALVING	PIPELINE	FLANGE LEAKS, RELIEF VALVE OPENS	WHEN PUMPS ARE STARTED	VERY LOW 2	SMALL LEAK	SPILLS ON LAND 2	4	STOP PUMPS, CONTAIN SPILL
START OF TRANSFERRING OIL	OPEN PIPELINE ISOLATION VALVES	FAILED TO OPEN ALL VALVES	IMPROPER VALVING	PIPELINE	FLANGE LEAKS, RELIEF VALVE OPENS	WHEN PUMPS ARE STARTED	VERY LOW 2	SMALL LEAK	SPILLS ON LAND 2	4	STOP PUMPS, CONTAIN SPILL
TRANSFERRING OIL	CLOSE PIPELINE ISOLATION VALVES	CLOSED VALVES WHILE TRANSFERRING OIL	IMPROPER TRANSFER SEQUENCE	PIPELINE	FLANGE LEAKS, RELIEF VALVE OPENS RUPTURES	DURING TRANSFER	VERY LOW 2	SMALL LEAK	SPILLS ON LAND 2	4	STOP PUMPS, CONTAIN SPILL
TRANSFERRING OIL	OPEN STORAGE TANK VALVE	OPENED VALVE ON WRONG TANK	IMPROPER VALVING	PMR STORAGE TANKS	TANK OVERFLOW	DURING RECEIPT	VERY LOW 2	OVERFLOW/ SPILL	SPILLS ON LAND 3	6	ISOLATE TANK, CONTAIN SPILL
TRANSFERRING OIL	FILLING STORAGE TANK	FAILED TO MONITOR TRANSFER OPERATION	FAILURE TO TERMINATE TRANSFER	PMR STORAGE TANKS	TANK OVERFLOW	DURING RECEIPT	LOW 3	OVERFLOW/ SPILL	SPILLS ON LAND 3	9	ISOLATE TANK, CONTAIN SPILL
START OF PIGGING OPERATION	PIGGING PIPELINE	FAILED TO CHECK VALVE POSITION	FAILURE TO CLOSE VALVE	DRAIN VALVE/ PRESSURE RELIEF VALVE OPEN	PIG STATION VALVE LEAK	DURING TRANSFER	LOW 3	SMALL LEAK	SPILLS ON LAND 2	6	CLOSE VALVE, CONTAIN SPILL

(1) RISK NUMBERS SELECTED FOR EACH ITEM, FROM 1 TO 5, WITH 5 AS THE HIGHEST

(2) HAZARD RANKING DETERMINED BY MULTIPLYING NUMBERS OF THREE PREVIOUS COLUMNS

**TABLE XI-10  
FAILURE MODES AND EFFECTS ANALYSIS**

SYSTEM FUNCTION: FUEL OIL LOADING & OPERATION

APRIL 1991

**FUEL OIL UNLOADING AND TRANSFER FROM PORT OF PALM BEACH TO  
MARTIN TERMINAL**

INDENTURE LEVEL: LOADING & UNLOADING COMPONENTS

Component	Failure Mode	Probable Cause	Advance Detection	Criticality Assessment					Nstant Response
				Frequency of Failure	Result of Fa lure	Oil Sp Lls Where	Hazard Ranking		
(1)				(2)	(2)	(2)	(3)		
Unloading Arms	Metal Thinn ng	Corrosion	Visual & Hydrotest	Low 3	Moderate with Pumps On 4	Deck, Dock, or Water 4	48	Stop Pumps, Contain Sp Ll	
Unloading Arms	Rotary Joint Leak	Wear on Seal & Bear ngs	Visual & Hydrotest	Low 3	Small with Pumps On 3	Deck, Dock, or Water 4	36	Stop Pumps, Contain Sp Ll	
Unloading Arms, North Dock	Arm Bumps nto Tanker	Man la Rope Tether l ne Tears	Visual	Moderate 4	Small Sp Ll 3	Deck, Dock, or Water 4	48	Raise Arm, Contain Sp Ll	
Unloading Arms, South Dock	Instant Rupture	Mobile Boom Tractor Drops Arm	None	Moderate 4	Small Sp Ll 3	Deck, Dock, or Water 4	48	Contain Sp Ll	
Underground Pipeline Dock to Prv	Metal Thinn ng	Corrosion	None	Moderate 4	Moderate with Pumps On 4	Pump, Pit, or Upland 2	32	Stop Pumps, Contain Sp Ll	
Underground Pipeline Dock to PMR Term nal	Metal Thinn ng	Corrosion	Annual Hydrotest	Low 3	Moderate with Pumps On 4	Pump, Pit, or Upland 2	24	Stop Pumps, Contain Sp Ll	

(1) THESE ARE THE DETECTION METHODS CURRENTLY IN USE AT THE SITE

(3) HAZARD RANKING DETERMINED BY MULTIPLYING NUMBERS OF THREE PREVIOUS COLUMNS

(2) RISK NUMBERS SELECTED FOR EACH ITEM, FROM 1 TO 5, WITH 5 AS THE HIGHEST

TABLE XI-11

SYSTEM FUNCTION: FUEL OIL LOADING &amp; OPERATION

## FAILURE MODES AND EFFECTS ANALYSIS

JUL 1993

FUEL OIL TRANSFER FROM MARTIN TERMINAL  
TO MARTIN PLANTIDENTURE LEVEL: LOADING & UNLOADING  
COMPONENTS

COMPONENT	FAILURE MODE	PROBABLE CAUSE	ADVANCE DETECTION	CRITICALITY ASSESSMENT				INSTANT RESPONSE
				FREQUENCY OF FAILURE	RESULT OF FAILURE	OIL SPILLS WHERE	HAZARD RANKING	
(1)				(2)	(2)	(2)	(3)	
TMR STORAGE TANKS	METAL THINNING	(b) (3), (b) (7)(F)		VERY LOW 2	SMALL LEAK 2	DRAINS ON LAND 2	8	ISOLATE TANK, CONTAIN SPILLS
TMR STORAGE TANKS	OVERFLOW			VERY LOW 2	OVERFLOW/ SPILL 3	SPILLS ON LAND 2	12	ISOLATE TANK, CONTAIN SPILLS
TMR STORAGE TANKS	RUPTURE			VERY LOW 2	SPILL 3	SPILLS ON LAND 5	30	CONTAIN SPILLS
TRANSFER PUMPS	SHAFT SEAL FAILURE			LOW 3	LEAK 2	DRAINS ON LAND 2	12	STOP PUMPS, CONTAIN SPILLS
PIG STATION	DRAIN VALVE LEAKING			VERY LOW 2	SMALL WITH PUMP ON 2	SPILLS ON LAND 1	4	STOP PUMPS, CONTAIN SPILLS
PIG STATION	PRESSURE RELIEF VALVE			VERY LOW 1	SMALL WITH PUMP ON 3	SPILLS ON LAND 1	3	STOP PUMPS, CONTAIN SPILLS
PIPELINE	METAL THINNING			LOW 3	SMALL LEAK 3	UNDERGROUND 4	36	STOP PUMPS, CONTAIN SPILLS
PIPELINE	BREAK/RUPTURE			VERY LOW 2	SPILL 4	UNDERGROUND 5	40	STOP PUMPS, CONTAIN SPILLS
COMPONENT	FAILURE MODE	(b) (3), (b) (7)(F)	CRITICALITY ASSESSMENT				INSTANT RESPONSE	
			FREQUENCY OF FAILURE	RESULT OF FAILURE	OIL SPILLS WHERE	HAZARD RANKING		
(2)				(2)	(2)	(3)		
PIPELINE VALVES	METAL THINNING			LOW 3	SMALL LEAK 2	UNDERGROUND 4	24	STOP PUMPS, CONTAIN SPILLS
VALVES	PACKING/LEAKING			LOW 3	SMALL LEAK 2	UNDERGROUND 3	18	STOP PUMPS, CONTAIN SPILLS
PMR STORAGE TANKS	OVERFLOW			LOW 3	OVERFLOW/ SPILL 4	SPILLS ON GROUND 4	75	STOP PUMPS, CONTAIN SPILLS

(1) THESE ARE THE DETECTION METHODS CURRENTLY IN USE AT THE SITE

(3) HAZARD RANKING DETERMINED BY MULTIPLYING NUMBERS OF THREE PREVIOUS COLUMNS

(2) RISK NUMBERS SELECTED FOR EACH ITEM, FROM 1 TO 5, WITH 5 AS THE HIGHEST



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## ***E. CONTAINMENT AND DRAINAGE PLANNING***

The risks of a major spill at the facility that would reach surface waters are associated with the potential occurrence of a hurricane related storage tank failure, or a pipeline failure. Potential oil spill drainage paths are described in Figures II-13 and II-13A. The occurrence of a Level III incident reaching surface waters, however, is unlikely, because of the secondary containment and facility drainage systems, which exist at the facility and because of the policies, practices, and procedures described in Section X of this plan.

All major oil handling equipment, including pumps, strainers, meters, launcher/receiver barrels and the truck unloading areas are located on concrete paved and curbed areas which gravity drain to the oily water basin. Storm water collected in the oily water basin is processed through an oil water separator and a low API gravity separator prior to discharge to the Riviera Municipal treatment system.

The RBEC compressor station, including units, tanks, transformers, and separators are located on concrete and curbed areas which drain to the compressor drain vessel, condensate tank or contained with a manual valve. All storm water from the compressor station drains south to the dry retention pond. An earthen berm is located on the east side of the compressor station to prevent flow of water off site into the I-95 corridor.

The earthen berm shall contain drainage and runoff within the facility.

General site drainage flows to a canal system located on the west and south sides of the facility. Oil booms are permanently maintained at three points in this canal system to contain any potential spills from the immediate terminal area.

Diked areas for Tanks A and B and the Purge Oil Tank do not have drain valves. Rainwater percolates into the ground. For the mineral oil tank, rainwater is removed through a drain valve located within the containment wall. This valve is maintained in locked position and opened manually only under direct supervision of trained personnel. Any oil that may have been released into any of the diked area would

typically be removed by vacuum pump equipped tank trucks. A listing of the capacities of each sump pump is provided in the Table below.

TABLE XI-12	
SUMP PUMP CAPACITIES	
Sump Number	Capacity (Gallons per Minute)
P-1270A East Oil Sump Pump	(b) (7)(F), (b) (3)
P-1270B West Oil Sump Pump	

## Spill History

This section briefly describes the reportable spill history at the Martin Terminal.

INCIDENT DESCRIPTION	
Date of discharge	4/2/2009
Cause of discharge	On 4/2/2009 @ 09:00 am a oil leak (spill) approximately 5 gallons was observed by Transtate technician at block valve 'C' on TMR 18" pipeline. The Transtate technician was dispatched to the site to fix the pressre fluctuation reported bt the operator at block valve 'C'. The pipeline was shut down and the source of the leak was isolated immediately
Materials discharged	No. 6 Fuel Oil
Amount discharged (Gallons)	Approx. 5 gallons
Amount reached Navigable Waters	N/A
Effectiveness of secondary containment	Not available
Clean-up actions taken	Crew responded with sorbent materials, waste drums and shovels to remove contaminated soil..
Steps to reduce recurrence	The pipeline was shut down immediately and the corroded small bore pipe and pressure transmitter was replaced. The other main on line block valves were checked for the same issue.  The PM schedule was revised to include visual inspection of all block valve by-pass lines on semi-annually bias to look for any evidence of corrosion. Standard 01944 is scheduled twice a year.
Capacity of tank(s)/containment from which spill occurred	Not Available
Enforcement actions	None
Effectiveness of monitoring equipment	Not Available
Description of how spill detected	Transtate tech. reported spill when he intended to fix the pressure fluctuation at block valve C.

**Vulnerability of Facility from a Nature Disaster**

The Martin Terminal is subject to a number of severe weather conditions, including flooding, tornadoes, winds, heavy rains, and hurricanes. These natural phenomena present the potential for extensive damage in and around the facility. However, the terminal is designed to minimize impacts from such events and the facility has emergency procedures in place.

**Tank Ages**

The risk of tank rupture from the storage tanks is low since the tanks are inspected regularly. Inspection dates are in Section X.K. Tables II-10 and II-11 report tank ages.

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**SECTION XII:****TRAINING AND DRILLS**

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**A. *DISCHARGE PREVENTION AND RESPONSE TRAINING***

Florida Power and Light (FPL) provide discharge prevention and response training to all of its oil handling and oil spill response personnel. In addition, new employees are promptly trained upon being hired. The training of personnel in the prevention of oil spills and the prompt and effective response to an oil spill incident are an important aspect of the overall oil spill prevention and response preparedness program. The training is intended to assure that all oil-handling employees and members of the Onsite Response Team (ORT) clearly understand the importance of oil spill prevention, the contents of this Facility Response Plan (FRP) and their respective roles and responsibilities within the scope of the Plan. The training is designed to prepare Response Team members in carrying out their job responsibilities in a prompt and efficient fashion, should an incident occur. Monthly safety meetings are also held to improve awareness in these areas. Specific topics included in the training program are described below.

Discharge prevention training topics include:

- Operating & maintenance of all equipment to prevent oil discharges.
- Overview of applicable state and federal laws, rules, and regulations.
- General facility operations.
- Contents of the SPCC Plan.

Discharge response training topics include:

- Incident Command System (ICS)
- Spill reporting procedures
- Spill containment procedures
- Spill recovery procedures
- Roles and responsibilities of the ORT

- Storage of waste materials
- OSHA HAZWOPER training

Discharge prevention briefings are held annually to ensure adequate understanding of the SPCC Plan; to provide a description of any known discharges, failures, any malfunctioning components; and to ensure that any recently developed precautionary measures and appropriate personnel are properly instructed in the operation and maintenance of all equipment to prevent oil discharges.

All personnel, including volunteers and casual laborers, who respond to an oil spill, in any capacity, would receive training by FPL's Industrial Hygiene Unit Leader, which is in compliance with 29 CFR 1910, Subpart L and 29 CFR 1910.12(q). Volunteers, participating in mitigating the effects of an oil spill, may be used, as deemed appropriate, by the FOSC. Typically, volunteers would be assigned to tasks that have minimal safety risks, such as beach surveillance, logistic support, or wildlife rehabilitation. In addition, responders would be informed of the physical and health hazards of the substances they handle, the measures to protect themselves from these hazards, and the use and location of Material Safety Data Sheets (29 CFR 1910.1200).

#### ***B. CORPORATE RESPONSE TEAM TRAINING***

All Corporate Response Team (CRT) members participate in eight hours of initial ICS training. In addition, certain members complete a 40-hour OSHA HAZWOPER training program, while other members receive specialty training such as wildlife rehabilitation or insitu burning. Details of the CRT training are provided in the Corporate Plan.

#### ***C. DRILL PROCEDURES***

FPL has elected to implement the National Preparedness for Response Exercise Program (PREP) to satisfy exercise requirements under the Oil Pollution Act of 1990 (OPA-90). The PREP is a unified, federal effort which incorporates the exercise requirements of the U.S. Coast Guard (USCG), the U.S. Environmental Protection

Agency (USEPA) and the Research and Special Programs Administration (RSPA) Office of Pipeline Safety under the Department of Transportation (DOT).

### **PREP Implementation**

The drill year will commence on January 1 and conclude on December 31 of each year. The Corporate Coordinator is responsible for conducting and scheduling drills for the CRT in accordance with the Prep schedule in Table XII-1. The Terminal Oil Spill Coordinator is responsible for conducting and scheduling drills for the ORT in accordance with the Prep schedule in Table XII-1.

### **Internal and External Exercises**

The PREP Guidelines consist of both internal and external exercises. Internal exercises are those conducted wholly within FPL. The internal exercises test the various components of each facility's response plan and the Corporate Plan to ensure that all plans are adequate to meet spill response needs within FPL. The internal exercises include:

- QI Drills;
- Spill Management Team Tabletop Exercises;
- Equipment Deployment Exercises; and
- Emergency Procedures Exercises (optional).

All internal exercises will be self-evaluated and self-certified. Under the PREP guidelines the facility is responsible for addressing any issues that arise from evaluation of the exercises and for making changes to the response plan necessary to ensure the highest level of preparedness.

The external exercises go outside of FPL's organization to test the interaction of FPL's entire response plan (Facilities and Corporate Plan) with the response community (Government Agencies, Contractors, etc.). External exercises will consist of Area Exercises, which are intended to exercise area contingency plans prepared under OPA-90 by the USCG (for coastal areas) and USEPA (for inland areas), and Government-Initiated Unannounced Exercises. The goal of PREP is to conduct 20 Area Exercises per year nationwide, 60 within a triennial cycle. Six of



the 20 annual exercises will be led by the government, and 14 will be industry-led. Government-led exercises commenced in 1994 and industry-led exercises commenced in 1995. All Area Exercises will be developed and monitored by an "exercise design team" comprising representatives from federal, state and local government, and industry.

Triennial Drills (every three years) must include the following exercises:

TABLE XII-1				
PREPARATORY TRIENNIAL DRILL SCHEDULE TERMINAL AND PIPELINE DRILLS				
DRILL TYPE	FREQUENCY	DRILLS/ 3 YEAR PERIOD	AGENCY	INITIATING AUTHORITY
QI Notification	Quarterly	12	USEPA, USCG, RSPA	ORT
Emergency Procedures	Quarterly Optional	12 Optional	USEPA, USCG	ORT
Tabletop Exercises	Annual	3	USEPA, USCG, RSPA	CRT
Unannounced Exercises	Annual	3	USEPA, USCG	ORT & CRT
Equipment Deployment	Annual	3	USEPA, USCG RSPA	OSRO
Exercise Entire Response Plan	All components every 3 years	1	USEPA, USCG, RSPA	ORT & CRT
CORPORATE RESPONSE TEAM DRILLS				
Tabletop Exercise	Annual	3	USEPA,USCG	CRT
Equipment Deployment	Annual	3	USEPA,USCG	CRT
Exercise Entire Response Plan	All components every 3 years	1	USEPA,USCG, RSPA	CRT
AGENCY INITIATED DRILLS				
DRILL TYPE	FREQUENCY	ADVANCED NOTICE	INITIATING AUTHORITY	RESPONSE TEAM AFFECTED
Unannounced Tabletop Exercise	Annually, if selected	10 <sup>2,4</sup> days prior	RSPA	CRT & ORT
Unannounced Equipment Deployment	Annually, if selected	None <sup>4</sup>	USEPA,USCG	ORT
Area Exercise	Triennially, if selected	Advanced notice <sup>2</sup> provided	USEPA, USCG, FPL	CRT & ORT
<b>Notes:</b> <sup>1</sup> Unannounced drills can include any of the following: <ul style="list-style-type: none"> <li>• Emergency Procedures Exercises</li> <li>• Spill Management Team Tabletop Exercises</li> <li>• Equipment Deployment Exercises</li> </ul> <sup>2</sup> 20 Exercises total nationwide per year (six government-led and 14 industry-led) <sup>3</sup> One drill must include a worst case discharge scenario <sup>4</sup> Not required to participate in another federal government initiated drill until 36 months have passed				

In meeting the equipment deployment requirement, it is not necessary that every piece of equipment identified in the plan be deployed and operated. Only a representative sample of each type of equipment need be deployed and operated, but that must include a minimum of 1,000 feet of each type of boom in inventory and one of each type of skimming system (equipment necessary to respond to the average most probable discharge).

In addition to the above drill requirements, each facility response team and CRT will be required to exercise all components of their entire response plan every three years. These plan components do not have to be exercised all at once, but can be exercised in segments over the three-year triennial period.

The following Corporate and Facility Response Plan Components must be exercised at least once every three years.

### **Organizational Design**

- 1) Notifications
- 2) Staff/Response Team Mobilization
- 3) Ability to operate within the response management system described in the plan

### **Operational Response**

- 4) Discharge Control
- 5) Assessment of Discharge
- 6) Containment of Discharge
- 7) Recovery of Spilled Material
- 8) Protection of Sensitive Areas
- 9) Disposal of Recovered Materials and Contaminated Debris

### **Response Support**

- 10) Communications
- 11) Transportation
- 12) Personnel Support
- 13) Equipment Maintenance and Support

- 14) Procurement
- 15) Documentation

The CRT will be responsible for exercising and documenting all of the response plan components (1-15). The CRT will also exercise and document plan components 10, 11, 12 and 14 for each facility team. Each facility will be responsible for documenting components one through nine, 13, and 15.

### **Drill Credit**

Credit can be taken for responses to real spill events and participation in area exercises as long as all objectives of the drill are met and properly documented.

### **Proper Drill Documentation**

To properly document PREP drills, Drill Documentation Forms are provided at the end of this section for each type of facility or corporate-initiated exercise. Specific documentation forms are not provided for agency-initiated Area Exercises or agency-initiated Unannounced Drills. These exercises should be documented on one or more of the forms provided as appropriate. Additionally, the Corporate Plan contains Response Management Forms, which should also be used when appropriate to document drill objectives. Copies of these forms are provided in the Corporate Plan. Drill Documentation Forms must be completed to verify that the objectives of the exercise have been met, that the drill has been completed, and that the effectiveness of the plan has been evaluated based on exercise performance. Finally, each Drill Documentation Form must be signed by a responsible individual such as the OSC/QI, Oil Spill Coordinator, or Training Supervisor. Completion of the Drill Documentation Forms should constitute Self-Evaluation and Self-Certification, as required under the PREP Guidelines.

It will be the responsibility of the facility oil spill coordinator to evaluate any "Lessons Learned" during the exercises and to implement those lessons deemed appropriate in a timely manner. In addition, the facility oil spill coordinator will revise the

Response Plan to address any "Lessons Learned" if such revision(s) will enhance the response team's preparedness.

#### ***D. RECORDKEEPING***

##### **Training Records**

The Terminal Oil Spill Coordinator will maintain records sufficient to document training of its response team personnel and maintain them at the facility for as long as the member remains a part of the facility response team. These records would be made available for agency inspection upon request. The Corporate Oil Spill Coordinator will maintain records for the CRT sufficient to document training of its personnel for as long as the member remains a part of the CRT. These records would be available for agency inspection upon request. Discharge Prevention meetings will be conducted on a regular basis and maintained at the facility for a period of five years. Table XII-2 is a sample of a discharge prevention meeting log. Also, an oil spill prevention and response training documentation sheet is provided at the very end of this section.

##### **Drill Records**

The Terminal Oil Spill Coordinator would ensure that records sufficient to document drills, for its facility personnel, are maintained for five years following completion of drills. Similarly, the Corporate Oil Spill Coordinator would ensure that records sufficient to document the drills of its CRT are maintained for five years. Drill records would be made available for inspection upon request by agency personnel.



## Drill Documentation Forms

Drill Documentation Forms are provided on the following pages.

EQUIPMENT DEPLOYMENT DRILL DOCUMENTATION FORM	
<b>SECTION I: DRILL INFORMATION</b>	
FACILITY NAME: _____ PREPARED BY: _____ DATE OF DRILL: _____ TIME DRILL STARTED: _____ TIME DRILL COMPLETED: _____ CHECK WHETHER THIS IS A FACILITY DRILL, A CORPORATE DRILL OR BOTH. ALSO CHECK WHETHER DRILL IS ANNOUNCED OR UNANNOUNCED.  FACILITY: _____ CORPORATE: _____ ANNOUNCED: _____ UNANNOUNCED: _____  IS DRILL IN CONJUNCTION WITH OTHER EXERCISE? _____ YES NO IF YES, WHAT TYPE OF DRILL _____ IS THIS AN EXERCISE OR ACTUAL RESPONSE? _____ ATTACH DRILL SCENARIO(S) IF APPROPRIATE	
<b>SECTION II: DRILL OBJECTIVES</b>	
CHECK EACH OBJECTIVE DEMONSTRATED DURING THE DRILL _____ DEMONSTRATE ABILITY OF RESPONSE TEAM TO ORGANIZE IN ACCORDANCE WITH THE RESPONSE PLAN _____ ENSURE EQUIPMENT IS IN PROPER WORKING ORDER _____ DEMONSTRATE ABILITY OF RESPONSE PERSONNEL TO DEPLOY AND OPERATE EQUIPMENT USE THE INITIAL INCIDENT BRIEFING FORM IN APPENDIX C TO ASSIST IN DOCUMENTING APPROPRIATE DRILL INFORMATION. THE FOLLOWING EQUIPMENT MUST BE DEPLOYED. 1000 FEET OF EACH TYPE OF BOOM IN INVENTORY AND ONE OF EACH TYPE OF SKIMMING SYSTEM. DESCRIBE GOALS OF EXERCISE (ATTACH LIST OF EQUIPMENT DEPLOYED AND BOOMING STRATEGIES): _____ _____ LIST EACH TYPE OF EQUIPMENT DEPLOYED, WHERE IT WAS DEPLOYED AND OPERATIONAL STATUS. EQUIPMENT TYPE LOCATION OPERATIONAL LIST NO. OF SUPPORT PERSONNEL _____ _____ _____	

<b>EQUIPMENT DEPLOYMENT DRILL DOCUMENTATION FORM</b>	
<b>SECTION III: DRILL EVALUATION &amp; RESULTS</b>	
<p>THE FOLLOWING QUESTIONS WILL BE COMPLETED BY THE DRILL EVALUATOR (A NO ANSWER REQUIRES A COMMENT)</p> <p>1. DID RESPONSE TEAM ORGANIZE AND IMPLEMENT THE INCIDENT COMMAND SYSTEM?</p> <p style="text-align: center;">YES    NO</p> <p>2. DID THE RESPONSE TEAM DEMONSTRATE THEIR ABILITY TO DEPLOY AND OPERATE THE EQUIPMENT IN ITS INTENDED OPERATING ENVIRONMENT?</p> <p style="text-align: right;">YES    NO</p> <p>3. DID THE EQUIPMENT OPERATE PROPERLY?</p> <p style="text-align: right;">YES    NO</p>	
<p>EVALUATOR'S SUMMARY (PROVIDE COMMENTS RELATIVE TO OBJECTIVES, LESSONS LEARNED, ISSUES REQUIRING RESOLUTION, ETC.)</p> <p>COMMENTS CAN BE PROVIDED BELOW OR AS AN ATTACHMENT:</p> <p>NAME OF EVALUATOR:</p>	
<b>SECTION IV: DRILL CERTIFICATION</b>	
<p>I CERTIFY THAT THE DRILL WAS COMPLETED, THAT THE RESPONSE PLAN OBJECTIVES AS INDICATED IN SECTION II WERE EXERCISED AND THAT THE DRILL WAS EVALUATED IN ACCORDANCE WITH THE PREP GUIDELINES.</p> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%; text-align: center;"> <p>_____</p> <p>PRINT NAME</p> </div> <div style="width: 45%; text-align: center;"> <p>_____</p> <p>PRINT TITLE</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%; text-align: center;"> <p>_____</p> <p>SIGNATURE</p> </div> <div style="width: 45%; text-align: center;"> <p>_____</p> <p>DATE</p> </div> </div>	



<b>EMERGENCY PROCEDURES EXERCISE DOCUMENTATION FORM (OPTIONAL)</b>
<b>SECTION I: DRILL INFORMATION</b>
<p>FACILITY NAME: _____</p> <p>PREPARED BY: _____ TIME DRILL STARTED: _____</p> <p>DATE OF DRILL: _____ TIME DRILL COMPLETED: _____</p> <p>CHECK WHETHER THIS IS A FACILITY DRILL, A CORPORATE DRILL OR BOTH. ALSO CHECK WHETHER DRILL IS ANNOUNCED OR UNANNOUNCED.</p> <p>FACILITY: _____ CORPORATE: _____</p> <p>ANNOUNCED: _____ UNANNOUNCED: _____</p> <p>IS DRILL IN CONJUNCTION WITH OTHER EXERCISE? <span style="float: right;">YES   NO</span></p> <p>IF YES, WHAT TYPE OF DRILL</p> <p>IS THIS AN EXERCISE OR ACTUAL RESPONSE?</p> <p>CHECK TYPE OF EMERGENCY PROCEDURES EXERCISE</p> <p>_____ TRANSFER EQUIPMENT FAILURE (PUMPS, HOSES, VALVES, MANIFOLD, ETC.)</p> <p>_____ TANK OVERFLOW                      _____ TANK FAILURE</p> <p>_____ PIPING RUPTURE                      _____ EXPLOSION OR FIRE</p> <p>_____ OTHER DESCRIBE _____</p> <p>ATTACH DRILL SCENARIO(S) IF APPROPRIATE</p>
<b>SECTION II: DRILL OBJECTIVES</b>
<p>CHECK EACH OBJECTIVE DEMONSTRATED DURING THE DRILL</p> <p>_____ EXERCISE FACILITY'S EMERGENCY PROCEDURES TO ONE OR MORE OF THE ABOVE EMERGENCIES TO ENSURE PERSONNEL KNOWLEDGE OF ACTIONS TO BE TAKEN TO MITIGATE A SPILL (CAN BE A WALK-THROUGH OF EMERGENCY PROCEDURES).</p> <p>_____ EXERCISE SHOULD INVOLVE ONE OR MORE SECTIONS OF EMERGENCY PROCEDURES FOR SPILL MITIGATION (EXERCISE SHOULD INVOLVE A SIMULATION OF RESPONSE TO AN OIL SPILL). <i>Note:</i> FACILITY SHOULD ENSURE THAT SPILL MITIGATION PROCEDURES FOR ALL CONTINGENCES ARE ADESSSED AT SOME TIME.</p> <p>USE THE CORPORATE PLAN RESPONSE MANAGEMENT FORMS TO ASSIST IN DOCUMENTING APPROPRIATE DRILL INFORMATION</p> <p>DESCRIBE EXERCISE: _____</p>
<b>SECTION III: DRILL EVALUATION &amp; RESULTS</b>
<p>COMPLETE ONLY THE QUESTIONS THAT APPLY. QUESTIONS WILL BE COMPLETED BY THE DRILL EVALUATOR (A NO ANSWER REQUIRES A COMMENT)</p> <p>1. WERE APPROPRIATE INTERNAL AND EXTERNAL NOTIFICATIONS CONDUCTED? YES   NO _____</p> <p>2. DID RESPONSE TEAM MOBILIZE TO THE SITE WITHIN A REASONABLE TIME? YES   NO _____</p> <p>3. DID THE INCIDENT COMMAND SYSTEM FUNCTION SUCCESSFULLY DURING THE</p>

EMERGENCY PROCEDURES EXERCISE DOCUMENTATION FORM (OPTIONAL)	
<p>RESPONSE?            YES    NO    _____</p> <p>4. HOW DID THE RESPONSE TEAM DEMONSTRATE EMERGENCY SHUTDOWN AND DISCHARGE CONTROL?            YES    NO    _____</p> <p>5. WAS A DETAILED ASSESSMENT OF THE DISCHARGE CONDUCTED?            YES    NO    _____</p> <p>6. WAS ADEQUATE DISCHARGE CONTAINMENT DEMONSTRATED?            YES    NO    _____</p> <p>7. WAS RECOVERY OF SPILLED MATERIAL DEMONSTRATED?            YES    NO    _____</p> <p>8. WERE CONTAINMENT BOOMS PROPERLY PLACED TO PROTECT ECONOMICALLY/ENVIRONMENTALLY SENSITIVE AREAS?            YES    NO    _____</p> <p>9. WERE EMERGENCY PROCEDURES PROPERLY DEMONSTRATED?            YES    NO    _____</p>	
<p style="text-align: center;"><b>EVALUATOR'S SUMMARY (PROVIDE COMMENTS RELATIVE TO OBJECTIVES, LESSONS LEARNED, ISSUES REQUIRING RESOLUTION, ETC.) COMMENTS CAN BE PROVIDED BELOW OR AS AN ATTACHMENT.</b></p> <p>NAME OF EVALUATOR: _____</p>	
SECTION IV: DRILL CERTIFICATION	
<p>I CERTIFY THAT THE DRILL WAS COMPLETED, THAT THE RESPONSE PLAN OBJECTIVES AS INDICATED IN SECTION II WERE EXERCISED AND THAT THE DRILL WAS EVALUATED IN ACCORDANCE WITH THE PREP GUIDELINES.</p>	
_____ PRINT NAME	_____ PRINT TITLE
_____ SIGNATURE	_____ DATE

<b>OSC/QI NOTIFICATION DRILL DOCUMENTATION FORM</b>	
<b>SECTION I: DRILL INFORMATION</b>	
FACILITY NAME: _____ PREPARED BY: _____ TIME DRILL STARTED: _____ TIME DRILL COMPLETED: _____ DATE OF DRILL: _____ IS DRILL IN CONJUNCTION WITH OTHER EXERCISE?      YES      NO IF YES, WHAT TYPE OF DRILL _____ IS THIS AN EXERCISE OR ACTUAL RESPONSE? _____	
<b>SECTION II: DRILL OBJECTIVES</b>	
CHECK EACH OBJECTIVE DEMONSTRATED DURING THE DRILL. DEMONSTRATE THE ACCESSIBILITY AND NOTIFICATION CAPABILITY OF THE: _____ QUALIFIED INDIVIDUAL _____ MEMBERS OF THE RESPONSE TEAM (OPTIONAL)  LIST PERSONNEL CONTACTED ON THE ATTACHED SHEET DESCRIBE NOTIFICATION PROCEDURE _____	
<b>SECTION III: DRILL EVALUATION &amp; RESULTS</b>	
THE FOLLOWING QUESTIONS WILL BE COMPLETED BY THE DRILL EVALUATOR (A NO ANSWER REQUIRES A COMMENT) 1. WAS CONTACT MADE WITH THE OSC/QI OR ALTERNATE WITHIN A REASONABLE PERIOD OF TIME? YES    NO  2. WAS CONTACT MADE WITH THE MAJORITY OF THE RESPONSE TEAM WITHIN A REASONABLE PERIOD OF TIME (OPTIONAL)? YES    NO  EVALUATOR'S SUMMARY (PROVIDE COMMENTS RELATIVE TO OBJECTIVES, LESSONS LEARNED, ISSUES REQUIRING RESOLUTION, ETC.) COMMENTS CAN BE PROVIDED BELOW OR AS AN ATTACHMENT: Changes to be implemented: _____ Time table for implementation: _____ NAME OF EVALUATOR: _____	
<b>OSC/QI NOTIFICATION DRILL DOCUMENTATION FORM</b>	
<b>SECTION IV: DRILL CERTIFICATION</b>	
I CERTIFY THAT THE DRILL WAS COMPLETED, THAT THE RESPONSE PLAN OBJECTIVES AS INDICATED IN SECTION II WERE EXERCISED AND THAT THE DRILL WAS EVALUATED IN ACCORDANCE WITH THE PREP GUIDELINES.   <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">             _____              PRINT NAME           </div> <div style="width: 45%;">             _____              PRINT TITLE           </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%;">             _____              SIGNATURE           </div> <div style="width: 45%;">             _____              DATE           </div> </div>	



SPILL MANAGEMENT TEAM TABLETOP EXERCISE DOCUMENTATION FORM	
<b>SECTION I: DRILL INFORMATION</b>	
FACILITY NAME: _____ QUALIFIED INDIVIDUAL: _____	
PREPARED BY: _____ TIME DRILL STARTED: _____	
DATE OF DRILL: _____ TIME DRILL COMPLETED: _____	
IS DRILL IN CONJUNCTION WITH OTHER EXERCISE?	
YES NO	
IF YES, WHAT TYPE OF DRILL	
IS THIS AN EXERCISE OR ACTUAL RESPONSE?	
RESPONSE PLAN SCENARIO USED (CHECK ONE):	
_____ AVERAGE MOST PROBABLE DISCHARGE	
_____ MAXIMUM MOST PROBABLE DISCHARGE	
_____ WORST CASE DISCHARGE	
SIZE OF (SIMULATED) SPILL _____ BBLS/GALS	
ATTACH COPY OF DRILL SCENARIO	
<b>SECTION II: DRILL OBJECTIVES</b>	
CHECK EACH OBJECTIVE DEMONSTRATED DURING THE DRILL	
_____ KNOWLEDGE OF RESPONSE PLAN.	
_____ PROPER NOTIFICATIONS MADE.	
_____ EFFECTIVENESS OF COMMUNICATION SYSTEM.	
_____ ABILITY TO ACCESS AN OSRO.	
_____ COORDINATION OF INTERNAL RESPONSE PERSONNEL.	
_____ ANNUAL REVIEW OF THE TRANSITION FROM LOCAL TEAM TO CORPORATE TEAM.	
_____ COORDINATE TO EFFECTIVELY COORDINATE SPILL RESPONSE ACTIVITY WITH THE NATIONAL RESPONSE SYSTEM INFRASTRUCTURE.	
_____ ABILITY TO ACCESS INFORMATION IN AREA CONT. PLAN FOR LOCATION OF SENSITIVE AREAS AND RESOURCES.	
USE THE CORPORATE PLAN RESPONSE MANAGEMENT SYSTEM FORMS TO ASSIST IN DOCUMENTING APPROPRIATE DRILL INFORMATION.	
DESCRIBE EXERCISE:	

### SECTION III: DRILL EVALUATION & RESULTS

THE FOLLOWING QUESTIONS WILL BE COMPLETED BY THE DRILL EVALUATOR.  
DESCRIBE HOW THE FOLLOWING OBJECTIVES WERE EXERCISED:

1. TEAM'S KNOWLEDGE OF THE RESPONSE PLAN:

2. CONDUCTING APPROPRIATE INTERNAL AND EXTERNAL NOTIFICATIONS:

3. USE OF COMMUNICATIONS SYSTEM IN SUPPORT OF RESPONSE OPERATIONS:

4. TEAM'S ABILITY TO ACCESS FPL, AGENCY AND CONTRACTED OIL SPILL REMOVAL ORGANIZATIONS (IF APPLICABLE):

5. TEAM'S ABILITY TO COORDINATE SPILL RESPONSE WITH ON-SCENE COMMANDER, AND STATE AGENCIES (IF APPLICABLE):

6. TEAM'S ABILITY TO ACCESS SENSITIVE SITE AND RESOURCE INFORMATION IN THE AREA CONTINGENCY PLAN:

EVALUATOR'S SUMMARY (PROVIDE COMMENTS RELATIVE TO OBJECTIVES, LESSONS LEARNED, ISSUES REQUIRING RESOLUTION, ETC.)  
COMMENTS CAN BE PROVIDED BELOW OR AS AN ATTACHMENT:

**Changes to be implemented:**  
**Time table for implementation:**

NAME OF EVALUATOR:

### SECTION IV: DRILL CERTIFICATION

**I CERTIFY THAT THE DRILL WAS COMPLETED, THAT THE RESPONSE PLAN OBJECTIVES AS INDICATED IN SECTION II WERE EXERCISED AND THAT THE DRILL WAS EVALUATED IN ACCORDANCE WITH THE PREP GUIDELINES.**

\_\_\_\_\_  
PRINT NAME

\_\_\_\_\_  
PRINT TITLE

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE

EXERCISE ENTIRE RESPONSE PLAN DOCUMENTATION FORM																																									
<b>SECTION I: DRILL INFORMATION</b>																																									
FACILITY NAME: PREPARED BY: DATE OF DRILL: CHECK WHETHER THIS DOCUMENTATION IS IN SUPPORT OF A FACILITY PLAN OR THE CORPORATE PLAN OR BOTH. FACILITY: _____ CORPORATE: _____																																									
<b>SECTION II: DRILL OBJECTIVES</b>																																									
INDICATE THE DATE EACH OBJECTIVE WAS DEMONSTRATED DURING THE TRIENNIAL PERIOD <table border="0"> <thead> <tr> <th>_____ DATE</th> <th>OBJECTIVES (FACILITY &amp; CORPORATE TEAM)</th> </tr> </thead> <tbody> <tr> <td></td> <td>ORGANIZATIONAL DESIGN</td> </tr> <tr> <td>_____</td> <td>CONDUCT NOTIFICATIONS</td> </tr> <tr> <td>_____</td> <td>MOBILIZE RESPONSE TEAM</td> </tr> <tr> <td>_____</td> <td>IMPLEMENT UNIFIED COMMAND/RESPONSE MGT. SYSTEM</td> </tr> <tr> <td></td> <td>OPERATIONAL RESPONSE</td> </tr> <tr> <td>_____</td> <td>STOP DISCHARGE FROM OCCURRING (DISCHARGE CONTROL)</td> </tr> <tr> <td>_____</td> <td>CONDUCT AN ASSESSMENT OF DISCHARGE</td> </tr> <tr> <td>_____</td> <td>DEMONSTRATE DISCHARGE CONTAINMENT</td> </tr> <tr> <td>_____</td> <td>CONDUCT RECOVERY OF SPILLING MATERIAL</td> </tr> <tr> <td>_____</td> <td>DEMONSTRATE PROTECTION OF ECONOMICALLY/ ENVIRONMENTALLY SENSITIVE AREAS</td> </tr> <tr> <td>_____</td> <td>DEMONSTRATE DISPOSAL OF RECOVERED PRODUCT</td> </tr> <tr> <td></td> <td>RESPONSE SUPPORT</td> </tr> <tr> <td>_____</td> <td>DEMONSTRATE ABILITY TO MAINTAIN/SUPPORT ALL EQUIPMENT</td> </tr> <tr> <td>_____</td> <td>DOCUMENT OPERATIONAL AND SUPPORT ASPECTS OF RESPONSE</td> </tr> <tr> <td></td> <td>(CORPORATE TEAM ONLY)</td> </tr> <tr> <td>_____</td> <td>ESTABLISH INTERNAL/EXTERNAL COMMUNICATION SYSTEMS</td> </tr> <tr> <td>_____</td> <td>DEMONSTRATE MULTI-MODE TRANSPORTATION SUPPORT</td> </tr> <tr> <td>_____</td> <td>DEMONSTRATE ABILITY TO PROVIDE PERSONNEL SUPPORT</td> </tr> <tr> <td>_____</td> <td>DEMONSTRATE PROCUREMENT OF RESOURCES</td> </tr> </tbody> </table> USE THE CORPORATE PLAN RESPONSE MANAGEMENT FORMS TO ASSIST IN DOCUMENTING APPROPRIATE DRILL INFORMATION		_____ DATE	OBJECTIVES (FACILITY & CORPORATE TEAM)		ORGANIZATIONAL DESIGN	_____	CONDUCT NOTIFICATIONS	_____	MOBILIZE RESPONSE TEAM	_____	IMPLEMENT UNIFIED COMMAND/RESPONSE MGT. SYSTEM		OPERATIONAL RESPONSE	_____	STOP DISCHARGE FROM OCCURRING (DISCHARGE CONTROL)	_____	CONDUCT AN ASSESSMENT OF DISCHARGE	_____	DEMONSTRATE DISCHARGE CONTAINMENT	_____	CONDUCT RECOVERY OF SPILLING MATERIAL	_____	DEMONSTRATE PROTECTION OF ECONOMICALLY/ ENVIRONMENTALLY SENSITIVE AREAS	_____	DEMONSTRATE DISPOSAL OF RECOVERED PRODUCT		RESPONSE SUPPORT	_____	DEMONSTRATE ABILITY TO MAINTAIN/SUPPORT ALL EQUIPMENT	_____	DOCUMENT OPERATIONAL AND SUPPORT ASPECTS OF RESPONSE		(CORPORATE TEAM ONLY)	_____	ESTABLISH INTERNAL/EXTERNAL COMMUNICATION SYSTEMS	_____	DEMONSTRATE MULTI-MODE TRANSPORTATION SUPPORT	_____	DEMONSTRATE ABILITY TO PROVIDE PERSONNEL SUPPORT	_____	DEMONSTRATE PROCUREMENT OF RESOURCES
_____ DATE	OBJECTIVES (FACILITY & CORPORATE TEAM)																																								
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	OPERATIONAL RESPONSE																																								
_____	STOP DISCHARGE FROM OCCURRING (DISCHARGE CONTROL)																																								
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_____	DEMONSTRATE PROCUREMENT OF RESOURCES																																								

**SECTION III: DRILL EVALUATION & RESULTS**

**THE FOLLOWING QUESTIONS WILL BE COMPLETED BY THE DRILL EVALUATOR (A NO ANSWER REQUIRES A COMMENT)**

1. WERE APPROPRIATE INTERNAL AND EXTERNAL NOTIFICATIONS CONDUCTED?  
YES NO
2. DID RESPONSE TEAM MOBILIZE TO THE SITE WITHIN A REASONABLE TIME?  
YES NO
3. DID THE INCIDENT COMMAND SYSTEM FUNCTION SUCCESSFULLY DURING THE RESPONSE?  
YES NO
4. HOW DID THE RESPONSE TEAM DEMONSTRATE DISCHARGE CONTROL?
5. WAS A DETAILED ASSESSMENT OF THE DISCHARGE CONDUCTED?  
YES NO
6. WAS ADEQUATE DISCHARGE CONTAINMENT DEMONSTRATED?  
YES NO
7. WAS RECOVERY OF SPILLED MATERIAL DEMONSTRATED?  
YES NO
8. WERE CONTAINMENT BOOMS PROPERLY PLACED TO PROTECT ECONOMICALLY/  
ENVIRONMENTALLY SENSITIVE AREAS?  
YES NO
9. WAS PROPER DISPOSAL OF RECOVERED PRODUCT DEMONSTRATED?  
YES NO



10. IS EQUIPMENT PROPERLY MAINTAINED?

YES NO

11. WAS ADEQUATE DOCUMENTATION OF DRILL EVENTS CONDUCTED?

YES NO

12. DID THE COMMUNICATION SYSTEM ADEQUATELY SUPPORT RESPONSE OPERATIONS?

YES NO

13. WERE TRANSPORTATION SUPPORT NEEDS MET?

YES NO

14. WAS ADEQUATE PERSONNEL PROVIDED TO STAFF THE RESPONSE ORGANIZATION?

YES NO

15. HOW DID THE TEAM DEMONSTRATE PROCUREMENT OF RESOURCES?

EVALUATOR'S SUMMARY (PROVIDE COMMENTS RELATIVE TO OBJECTIVES, LESSONS LEARNED, ISSUES REQUIRING RESOLUTION, ETC.)

COMMENTS CAN BE PROVIDED BELOW OR AS AN ATTACHMENT:

#### **SECTION IV: DRILL CERTIFICATION**

I CERTIFY THAT THE DRILL WAS COMPLETED, THAT THE RESPONSE PLAN OBJECTIVES AS INDICATED IN SECTION II WERE EXERCISED AND THAT THE DRILL WAS EVALUATED IN ACCORDANCE WITH THE PREP GUIDELINES.

\_\_\_\_\_  
PRINT NAME

\_\_\_\_\_  
PRINT TITLE

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE

<b>MARTIN TERMINAL OIL SPILL PREVENTION &amp; RESPONSE TRAINING – ATTENDANCE RECORD</b>			
<b>DATE</b>	<b>COURSE TITLE/ SPILL PREVENTION BRIEFING ISSUES</b>	<b>INSTRUCTORS</b>	<b>AFFILIATION</b>
<b>START DATE:</b>		1.	
<b>FINISH DATE:</b>		2.	
		3.	
<b>TOTAL HOURS:</b>			

<b>NAME ( please print)</b>	<b>NAME (signature)</b>	<b>JOB TITLE</b>	<b>WORK LOCATION SYMBOL</b>

*[Intentionally Blank]*

**SECTION XIII:****PLAN REVIEW AND UPDATE PROCEDURES**

The Martin Terminal Facility Response Plan will be reviewed and updated (if necessary) a minimum of once per year. This is in addition to the SPCC requirements that require a review and evaluation every five years. In addition, if new or different operating conditions occur or if information is discovered which may substantially affect the implementation of the plan or materially affect the response to a worst case discharge, the plan will be revised within 30 days. Examples of such changes in operating conditions include:

- Applicable regulations are revised;
- Plans fail in an emergency;
- A change in the facility's configuration that materially alters the information included in the response plan occurs [i.e., extension/ replacement of existing pipeline, construction of new storage tank(s) or pipeline(s)];
- The type of oil (oil group) handled, stored, or transferred that materially alters the required response resources changes;
- A change in the name(s) and/or capabilities of the oil spill removal organization occurs;
- A material change in the capabilities of the oil spill removal organization(s) that provide equipment and personnel to respond to discharges of oil;
- A material change in the facility's spill prevention and response equipment or emergency response procedures;
- Any other changes that materially affect the implementation of the response plan; and
- When required by the EPA Regional Administrator.

The plan will also be evaluated after each incident and revised within 30 days, if necessary. Reviews, updates, and maintenance of the plan will be the responsibility of the facility **Oil Spill Coordinator**. All plan holders will be encouraged to submit suggestions for corrections to and/or modifications of this plan directly to the **Oil Spill Coordinator** for plan corrections and distribution.

All revisions to this plan will be distributed to plan holders by cover letter (see Figure XIII-1). The letter and the attached update sheet will instruct the recipient as to which pages to

replace (i.e., the old page should be removed and replaced with the revised page). Each holder of this plan will be instructed to incorporate the changed pages and to review them to ensure that he/she maintains an up-to-date and accurate understanding of the provisions of this plan. Revisions and updates should be recorded by the plan holder on the Record of Revisions page located at the front of the plan.

**FIGURE XIII-1 EXAMPLE OF A REVISION COVER LETTER**

To: \_\_\_\_\_ Date: \_\_\_\_\_  
 From: \_\_\_\_\_ Location: GPA/JB  
 Subject: Response Plan – Transmittal  
 and Receipt Acknowledgement  
 Form 2 – Controlled Document(s)

The following change(s) is issued to the holder of Controlled Copy No. \_\_\_\_\_  
 of the Oil Spill Response Plan for the: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Please acknowledge receipt of the attachment(s) by returning this entire transmittal memorandum within fifteen (15) days, signed and dated, to GPA Document Management (GPA/JB).

Receipt of the above-described attachment(s) is hereby acknowledged. The above attachment(s) has been incorporated into Copy No. \_\_\_\_\_ and obsolete and/or deleted materials have been removed and destroyed.

\_\_\_\_\_  
 Signature

\_\_\_\_\_  
 Date

*(Intentionally Blank)*

**APPENDIX A**  
**OIL SPILL EMERGENCY RESPONSE EQUIPMENT**



***[Intentionally Blank]***

**ORT Response Equipment**

Table A-1 lists the available Oil Spill Response Equipment at the Martin Terminal.

**TABLE A-1**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL				400 FPL System	
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)				52,853 Bbls/Day	
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM				28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
<b>CONTAINMENT</b>								
Containment Boom	900 ft			new	Box No. 19			36" Overall
Containment Boom	900 ft			new	Box No. 18			36" Overall
Containment Boom	900 ft			new	Box No. 17			36" Overall
Containment Boom	900 ft			new	Box No. 16			36" Overall
Containment Boom	6900 ft			used	Trailer No. 9722			18"
Containment Boom	8400 ft			used	Trailer No. 9717			18"
Containment Boom	1000 ft			used	Trailer No. 9723			36"
Containment Boom	1900 ft			new	Box No. 12			18"

**TABLE A-1**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL					400 FPL System
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)					52,853 Bbls/Day
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM					28,800 FEET
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Containment Boom	1900 ft			new	Box No. 13			18"
Containment Boom	2000 ft			new	Box No. 14			18"
Containment Boom	2100 ft			new	Box No. 15			18"
Containment Boom	400 ft			new	Box No. 10			36"
Containment Boom	500 ft	Lapio		new	Box No. 10			
Containment Boom	500 ft	Petro		new	Box No. 10			
Containment Boom	3 sets of 2	Voss Barge			Box No. 23			
CONTAINMENT								
Absorbent Pads	576 bales	Various		New	Box No. 26			18 in x 18 in, 100 pads/bale
Absorbent Pads	108 bales			New	Box No. 27			36 in x 36 in
Absorbent Pads	132 bales			New	Box No. 27			18 in x 18 in, 100 pads/bale
Drum Skimmer	3 units	Elastec	100		Box No. 2			2 head floating w/power paks/hoses/3"x2" hydraulic pumps
Drum Skimmer	2 units	Elastec			Box No. 3			2 head floating w/power paks/hoses/3"x2" hydraulic pumps

**TABLE A-1**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL					400 FPL System
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)					52,853 Bbls/Day
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM					28,800 FEET
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Drum Skimmer	1 unit	Elastec			Box No. 3			4 head floating-spare no power pak
Floating Bladder	1 unit	CanFlex	FCD-25	1993	Box No. 3			2500 gal.
Floating Bladder	1 unit	CanFlex	FCD-25	1993	Box No. 6			2500 gal.
Floating Bladder	1 unit	CanFlex	FCD-25	1993	Box No. 7			2500 gal ea
Portable Oil Bladder	1 unit	Amer. Mar.		1992	Box No. 2			2500 gal. can
Portable Oil Bladder	1 unit	Amer. Mar.			Box No. 5			2500 gal. can
Portable Oil Bladder	1 unit	Amer. Mar.		1992	Box No. 7			2500 gal can
Portable Tanks	2 units	Quick Tank		1992	Trailer 9708			2000 gal each
Portable Tank	1 unit	Fast Tank		2000	OSR Building			2500 gallons
Rope Mop Skimmer	2 units	Oil Mop	Mark II-24	1993	Box No. 5		8832 total	Vertical/2-4 in. ropes/power paks & hydr hoses
Rope Mop Skimmer	2 units	small	Motion		Box No. 6			Vertical-w/power paks/hydr hoses
Snair	29 bags				Box No. 28			
Snair	30 bags				Box No. 24			
Snair on a Rope	82 bags				Box No. 24			

**TABLE A-1**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL					400 FPL System
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)					52,853 Bbls/Day
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM					28,800 FEET
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Snair on a Rope	40 bags				Box No. 28			
Sorbent Boom	84 bales	(810)		New	Box No. 25			8"
Sorbent Boom	21 bales	(610)		New	Box No. 25			6"
Sorbent Boom	5 bales	(810)		New	Box No. 28			8"
Sorbent Boom	22 bales	(610)		New	Box No. 28			6"
Sorbent Boom	4 bales	(410)		New	Box No. 28			4"
Sorbent Boom	13 rolls			New	Box No. 27			
Vacuum System	1 unit	Huber	100	1993	Box No. 1	1500	10286 total	skid mounted
Viscous Pom Poms	24 bags				Box No. 24			
Weir Skimmer	3 units	Slick Bar	Manta	1993	Trailer 9708			Flex Ray
Weir Skimmer	1 unit	Douglas	18000-SH	1993	Trailer 9708			Skim Pac
Weir Skimmer	3 units	Douglas	4200-SH	1992	Trailer 9708			Skim Pac
Weir Skimmer	1	Foilex	TDS 250	2000	OSR Building		19,885 bbl/day	Ocean Skimmer
PUMPS								
Air Operated Pumps	3 units	Wilden	M-15	1993	Trailer 9708			

**TABLE A-1**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL					400 FPL System
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)					52,853 Bbls/Day
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM					28,800 FEET
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Diesel Pump	1 unit	CH & E		1996	Box No. 7			3"
Lapio Pumps	2 units	Bowie			Box No. 4			With power paks/200' each hydraulic hose
Peristolic Pump	1 unit				Box No. 4			2"
Peristolic Pump	1 unit				Box No. 3			2"
Peristolic Pump	1 unit				Box No. 3			2"
Peristolic Pump	1 unit				Box No. 5			2"
Peristolic Pump	1 unit				Box No. 6			2"
Air Operated Pumps	4 units	Wilden	M-15	1993	Trailer	240 each	6,580 total	
Air Operated Pumps	5	CH & E	3239WH	1996	Containers	380	13028 total	No. 2 Fired
<b>MISCELLANEOUS</b>								
Skimmer Hose	450 ft	Douglas Engr		1992	Trailer			
Visqueen	6 rolls			1992	Trailer			4 mm x 20 ft x 100 ft
Rubber Boots	30 pairs			1992	Trailer			
Coveralls	2 boxes			1992	Trailer			24 pair/box
Plastic Liners	10 boxes			1992	Trailer			55 gal' 100 units/box

**TABLE A-1**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL				400 FPL System	
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)				52,853 Bbls/Day	
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM				28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Shovels	12 units			1992	Trailer			Square Point
Shovels	18 units			1992	Trailer			Round Ended
Hard Hats	2 boxes			1992	Trailer			50 units/box
Nylon Gloves	12 pair			1992	Trailer			
Rubber Gloves	4 bdl			1992	Trailer			12 pair/bundle
Hose 2 in suction	1,500 ft			1993	Trailer			with cam-lock fittings
Hose 2 in discharge	3,000 ft			1993	Trailer			with cam-lock fittings
Hose 4 in suction	1,000 ft			1993	Trailer			with cam-lock fittings
Hose 4 in discharge	1,000 ft			1993	Trailer			with cam-lock fittings
Anchor & Buoy Systems	30 units			1993	Trailer			22 lbs
Anchor & Buoy Systems	110 units			1993	Trailer			22 lbs
Anchors	100 units			1993	Trailer			22 lbs
Tow Bridles	10 units			1993	Trailer			
Buoys	10 units	OMI	B1147-R	1993	Trailer			
Lighted Buoys	60 units	OMI	B1147-RL	1993	Trailer			

**TABLE A-1**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL				400 FPL System	
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)				52,853 Bbls/Day	
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM				28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
			560					
Air Bottle	8 units	Scott			Trailer 9708			
Air Fitting	7 units				Trailer 9708			2" Female NPT
Air Fitting	2 units				Trailer 9708			3" Female NPT
Air Fitting	21 units				Trailer 9708			3/4" Elbow
Air Fitting	13 units				Trailer 9708			3/4" Female
Air Fitting	7 units				Trailer 9708			3/4" Female NPT
Air Fitting	16 units				Trailer 9708			3/4" Male
Air Fitting	20 units				Trailer 9708			3/4" Male NPT
Air Fitting	6 units				Trailer 9708			3/4" x 6" Male
Air Fitting	2 units				Trailer 9708			4" Female NPT Ball Valve
Air Fitting	100 units				Trailer 9708			Air King Safety Clip
Anchors	48 units	Danforth			Box No. 21			22 lbs
Anchors	46 units	Danforth			Box No. 22			22 lbs
Anchors	48 units	Danforth			Box No. 20			22 lbs
Anchors/Chains/Ropes	48 units	Danforth			Box No. 21			22 lbs



**TABLE A-1**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL		RESPONSE PERSONNEL						400 FPL System
TELEPHONE NUMBER: (561) 845-3398		EFFECTIVE DAILY RECOVERY RATE (derated)						52,853 Bbls/Day
CONTACT: Mike Kordsmeier		CONTAINMENT BOOM						28,800 FEET
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Anchors/Chains/Ropes	46 units				Box No. 22			
Anchors/Chains/Ropes	48 units				Box No. 20			
Anchor Rope	35 units				Trailer 9708			6'
Anchor Rope	69 units				Trailer 9708			Long
Barricade Lights	7 units				Trailer 9708			
Bladder Valve	2 units				Trailer 9708			3"
Boom Pin	1 box				Trailer 9708			173/Count
Bug Spray	3 units				Trailer 9708			Cans
Buoys	34 units	OMI	B1147-R	1993	Trailer 9708			
Buoys	9 units				Trailer 9708			Inflatable
Buoys	71 units	OMI	B1147-R		Box No. 21			
Buoys	71 units	Roto			Box No. 22			
Buoys	72 units	Roto			Box No. 20			
Cam-Lok	10 units				Trailer 9708			1 1/2" Female x 1 1/2" Male NPT

**TABLE A-1**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL					400 FPL System
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)					52,853 Bbls/Day
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM					28,800 FEET
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Cam-Lok	12 units				Trailer 9708			1 1/2" Male x 1 1/2" Male NPT
Cam-Lok	27 units				Trailer 9708			3" Male x 3" Female NPT
Cam-Lok	14 units				Trailer 9708			2" Female x 2" Female
Cam-Lok	33 units				Trailer 9708			2" Plug
Cam-Lok	19 units				Trailer 9708			3" Plug
Cam-Lok	28 units				Trailer 9708			2" Cap
Cam-Lok	22 units				Trailer 9708			3" Cap
Cam-Lok	25 units				Trailer 9708			4" Cap
Cam-Lok	23 units				Trailer 9708			4" Plug
Cam-Lok	15 units				Trailer 9708			4" Male x 4" Male NPT
Cam-Lok	19 units				Trailer 9708			3" Female x 3" Male NPT
Cam-Lok	14 units				Trailer 9708			3" Female x 2" Male
Cam-Lok	28 units				Trailer 9708			4" Female x 3" Male NPT
Cam-Lok	9 units				Trailer 9708			1 1/2" Female x 1 1/2" Female NPT
Cam-Lok	4 units				Trailer 9708			2" Female x 2" Female

**TABLE A-1**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL				400 FPL System	
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)				52,853 Bbls/Day	
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM				28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Cam-Lok	9 units				Trailer 9708			2" Female x 2" Male
Cam-Lok	19 units				Trailer 9708			2" Female x 1 1/2" Male
Cam-Lok	19 units				Trailer 9708			2" Female x 2" Male
Cam-Lok	37 units				Trailer 9708			3" Male x 3" Male NPT
Cam-Lok	13 units				Trailer 9708			3" Male x 3" Male
Cam-Lok	14 units				Trailer 9708			2" Male x 2" Male
Cam-Lok	8 units				Trailer 9708			2" Male x 1 1/2" Male
Cam-Lok	31 units				Trailer 9708			2" Male x 2" Female NPT
Cam-Lok	10 units				Trailer 9708			1 1/2" Male x 1 1/2" Female NPT
Cam-Lok	40 units				Trailer 9708			2" Male x 2" Male NPT
Cam-Lok	19 units				Trailer 9708			4" Female x 2" Male
Cam-Lok	7 units				Trailer 9708			3" Female x 2" Female
Cam-Lok	29 units				Trailer 9708			3" Male x 2" Male
Cam-Lok	31 units				Trailer 9708			2" Female x 2" Female
Cam-Lok	5 units				Trailer 9708			3" Female x 2" Female NPT

**TABLE A-1**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL				400 FPL System	
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)				52,853 Bbls/Day	
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM				28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Cam-Lok	3 units				Trailer 9708			3" Female x 3" Female NPT
Cam-Lok	4 units				Trailer 9708			4" Female x 4" Female NPT
Cam-Lok	11 units				Trailer 9708			4" Female x 3" Male NPT
Cam-Lok	1 unit				Trailer 9708			3" Female x 2" Female
Cam-Lok	5 units				Trailer 9708			4" Female x 3" Female NPT
Cam-Lok	1 unit				Trailer 9708			4" Female x 3" Female
Cam-Lok	9 units				Trailer 9708			3" Female x 3" Female
Cam-Lok	20 units				Trailer 9708			4" Male x 2" Female
Cam-Lok	18 units				Trailer 9708			3" Male x 2" Female
Cam-Lok	10 units				Trailer 9708			4" Female x 3" Male
Cam-Lok	10 units				Trailer 9708			4" Female x 3" Female
Cam-Lok	20 units				Trailer 9708			4" Male x 3" Male
Cam-Lok	4 units				Trailer 9708			6" Female x 4" Male
Cam-Lok	4 units				Trailer 9708			6" Male x 4" Female
Cooler/Cup Holder	5 units	Gott		1997	Trailer 9708			Cone Cup Holder
Davits	6 units				Box No. 23			w/manual winches

**TABLE A-1**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL		RESPONSE PERSONNEL					400 FPL System	
TELEPHONE NUMBER: (561) 845-3398		EFFECTIVE DAILY RECOVERY RATE (derated)					52,853 Bbls/Day	
CONTACT: Mike Kordsmeier		CONTAINMENT BOOM					28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Drinking Cups	33 boxes				Trailer 9708			33 boxes
Drum Liners	5 boxes				Trailer 9708			150 count
Fire Extinguisher	9 units				Trailer 9708			
Floating Control Arms for VOSS barge	3 sets of 2				Box No. 23			
Gloves	479 pairs			1997	Trailer 9708			Grain
Hammer Drills	2 units				Trailer 9708			
Hand Lights	48 units				Trailer 9708			
Hard Hats	125 units			1997	Trailer 9708			Standard/Orange
Hard Hat Lights	154 units				Trailer 9708			
Hose Floats	48 units				Trailer 9708			2" Male NPT x 1 1/2" Female NPT
Hose 2" discharge	1700 ft				Box No. 9			w/cam-lock fittings
Hose 2" suction	650 ft				Box No. 1			w/cam-lock fittings
Hose 2" suction	225 ft				Box No. 2			w/cam-lock fittings
Hose 2" suction	425'				Box No. 3			w/cam-lock fittings
Hose 2" suction	100 ft				Box No. 5			w/cam-lock fittings

**TABLE A-1**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL		RESPONSE PERSONNEL					400 FPL System	
TELEPHONE NUMBER: (561) 845-3398		EFFECTIVE DAILY RECOVERY RATE (derated)					52,853 Bbls/Day	
CONTACT: Mike Kordsmeier		CONTAINMENT BOOM					28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Hose 2" suction	200 ft				Box No. 6			w/cam-lock fittings
Hose 2" suction	350 ft				Box No. 7			w/cam-lock fittings
Hose 3" discharge	2050 ft				Box No. 8			w/cam-lock fittings
Hose 3" suction	1050 ft				Box No. 4			w/cam-lock fittings
Hose 3" suction	400 ft				Box No. 7			w/cam-lock fittings
Hose 4" discharge	475 ft				Box No. 9			w/cam-lock fittings
Hose 4" suction	200 ft				Box No. 9			w/cam-lock fittings
Hose 4" suction	50 ft				Box No. 1			w/cam-lock fittings
Hose 4" suction	100 ft				Box No. 7			w/cam-lock fittings
Life Vests	80 units				Trailer 9708			
Lifting Strap	3 units				Trailer 9708			
Lighted Buoys	4 units	OMI	B1147-RL560	1993	Trailer 9708			
Light Stand	2 units			1997	Trailer 9708			6' w/2 500
Light Sticks	23 units				Trailer 9708			
Megaphone/Siren	2 units			1997	Trailer 9708			15-20 watt

**TABLE A-1**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL				400 FPL System	
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)				52,853 Bbls/Day	
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM				28,800 FEET	
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLS)	EQUIPMENT DESIGN
Nylon Velcro Strap	48 units				Trailer 9708			
Oil	26 pints				Trailer 9708			2 Cycle
Power Cords	22 units				Trailer 9708			
Pump Strainer	2 units				Trailer 9708			3"
Rain Gear	89 units				Trailer 9708			Jackets
Rain Gear	80 units				Trailer 9708			Trousers
Rain Suits	288 units			1997	Trailer 9708			Large/Disposable
Rake	3 units				Trailer 9708			
Respirator	10 units				Trailer 9708			
Respirator	4 units	Scott	Air Paks		Trailer 9708			Self Contained
Respirator	1 unit	Scott	Air Paks		Trailer 9708			Umbilical
Respirator Cartridges	14 units				Trailer 9708			
Rope	1 unit				Trailer 9708			500'/Nylon - 3/4"
Rope	1 unit				Trailer 9708			600'/Poly - 3/8"
Rope	10 units				Trailer 9708			600'/Poly - 5/8"
Rope	1 unit				Trailer 9708			600'/Nylon - 1/4"

**TABLE A-1**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL					400 FPL System
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)					52,853 Bbls/Day
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM					28,800 FEET
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Rope	1 unit				Trailer 9708			600'/Brown Poly - 3/8"
Rubber Boots	65 pairs			1992	Trailer 9708			
Rubber Gloves	60 pairs			1992	Trailer 9708			
Safety Glasses	70 pairs			1997	Trailer 9708			Black/Smoke
Shovels	72 units			1992	Trailer 9708			Round Ended
Shovels	71 units			1997	Trailer 9708			Square Point
Suction Manifold	1 unit				Box No. 1			a/k/a christmas tree
Tarp	7 units				Trailer 9708			Top/Tank
Tow Bridles	2 units				Trailer 9708			18" floating
Tow Bridles	3 units				Trailer 9708			36" boom
Tow Bridles	10 units				Trailer 9708			18" boom
Tyvek Suit	100 units				Trailer 9708			Medium
Tyvek Suit	69 units				Trailer 9708			Large
Tyvek Suit	303 units				Trailer 9708			Extra Large
Visqueen	15 rolls				Trailer 9708			6mm x 20 ft x 100 ft
Water Cooler	8 units	GOTT		1997	Trailer 9708			10 gallon



**TABLE A-1**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL			RESPONSE PERSONNEL					400 FPL System
TELEPHONE NUMBER: (561) 845-3398			EFFECTIVE DAILY RECOVERY RATE (derated)					52,853 Bbls/Day
CONTACT: Mike Kordsmeier			CONTAINMENT BOOM					28,800 FEET
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
<b>TOOLS</b>								
Bolt Cutter	5 units				Trailer 9708			18"
Bolt Cutter	6 units				Trailer 9708			48"
Chain Saw	1 unit				Trailer 9708			Electric
Pipe Cutter	3 units				Trailer 9708			
Pipe Reemers	2 units				Trailer 9708			
Pipe Threader	3 sets				Trailer 9708			
Pipe Vice	1 unit				Trailer 9708			
Pipe Wrench	4 units				Trailer 9708			24"
Pitch Fork	1 unit				Trailer 9708			
Sledge Hammers	3 units				Trailer 9708			
Wrench	4 units				Trailer 9708			
<b>WILDLIFE REHAB</b>								
Centrifuge	1	Fisher Scientific	II W/6PL	2000	OSR			Centrifuge II W/6PL Angle TRT
Hot Water Heater	1 unit	Paloma	PH-24M-DP	2000	OSR			Auto gas water heater

**TABLE A-1**  
**MARTIN TERMINAL OIL SPILL RESPONSE EQUIPMENT**

MARTIN TERMINAL		RESPONSE PERSONNEL		400 FPL System				
TELEPHONE NUMBER: (561) 845-3398		EFFECTIVE DAILY RECOVERY RATE (derated)		52,853 Bbls/Day				
CONTACT: Mike Kordsmeier		CONTAINMENT BOOM		28,800 FEET				
TYPE	QTY	MAKE	MODEL	AGE	LOCATION	DESIGN CAPACITY (GPM)	EFFECTIVE DAILY RECOVERY RATE PER 24 HRS (BBLs)	EQUIPMENT DESIGN
Pressure/Booster Pump	1 unit	Sta-Rite	HP7C-01	2000	OSR Building			1/2 HP, 115/230 Vac, 1 Phase, Cast Iron Multistage
POWER								
Power Pack for Foilex	1 unit	Crucial	DHP-40 HCL 1	2000	OSR Building	0-26 gpm		Skid mounted diesel/hydraulic power pack
Notes: OSRO: Oil Spill Removal Organization. SWS Environmental Services is the Martin Terminal's primary OSRO. Their response time to the site is approximately 1 hour. Other certified OSROs may be called to respond to larger spills. See telephone numbers in Emergency Notification Phone List (Table II-3) of this plan for details of the name of the OSRO's that will respond in the event of an oil spill. The Plant uses Channel 1 on their two-way radios for operations and maintenance communication. Equipment and tanks are inspected periodically: informal inspections are conducted daily and formal recorded inspections are conducted monthly. The spill response equipment is monitored monthly. Response Equipment List and Location (see Figure II-8).								

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**APPENDIX B**  
**AMENDMENTS**



**AMENDMENT 1****FRP & SPCC PLAN FOR MARTIN TERMINAL**

This facility is attaching an amendment to the FRP & SPCC plan, which reflects changes that materially affect the facility's potential for the discharge of oil into or upon the navigable waters of the United States. The changes addressed in this amendment are as follow:

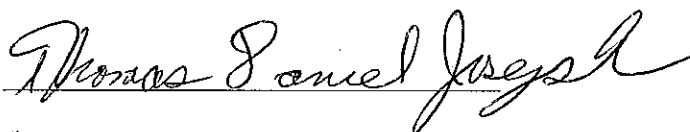
1. Addition of Riviera Beach Energy Center (RBEC) Compressor Station.
2. Updated Tanks (T2 & T3) Internal Inspection Date.
3. Purge Oil Tank (T3) was taken out of service for modification.

The following have been altered to reflect the changes:

- a. Preface
- b. Section II
- c. Section III
- d. Section X
- e. Section XI
- f. Figure II-6 through Figure II-9A
- g. Figure II-11 to Figure II-13A
- h. Figure III - 1
- i. Figure XI - 1
- j. Figure XI - 1A
- k. Appendix C

**AMENDMENT 1****FRP & SPCC PLAN FOR MARTIN TERMINAL****Certification**

I hereby certify that I have examined the facility, and attest that: I am familiar with the requirements of 40 CFR 112; that I or my agent has visited and examined the facility; that the Amendment has been prepared in accordance with good engineering practices, including consideration of applicable industry standards, and with the requirements of 40 CFR 112. In addition, procedures for required inspections and testing have been established, and revisions to the plan are adequate for the facility.

P.E. Signature: 

Date: October 10, 2013

P.E. Name: Thomas Daniel Joseph  
Registration #: 35332  
State: Florida

Florida Power & Light  
700 Universe Blvd.  
Juno Beach, FL 33408

P.E. Seal:





**AMENDMENT 2****SPCC PLAN FOR MARTIN TERMINAL**


This facility is attaching an amendment to the SPCC plan. These revisions do not reflect changes in the facilities potential for the discharge of oil into or upon navigable waters but rather represent existing conditions or operations:

1. Addition of piping containment description (inside and outside of secondary containment) and exiting No. 6 Fuel Transfer Yard at the Port of Palm Beach containment and drainage system description in Section X.
2. Items were added to the table "Description of Modification" in Section X.

**Certification**

I hereby certify that I have examined the facility, and attest that: I am familiar with the requirements of 40 CFR 112; that I or my agent has visited and examined the facility; that the Amendment has been prepared in accordance with good engineering practices, including consideration of applicable industry standards, and with the requirements of 40 CFR 112. Procedures for required inspections and testing have been established and the plan is adequate for this facility.

P.E. Signature:

Date: February 26, 2014

P.E. Name: Thomas Daniel Joseph  
Registration #: 35332  
State: Florida

Florida Power & Light  
700 Universe Blvd.  
Juno Beach, FL 33408

**APPENDIX C**  
**INSPECTION FORMS**

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## **FLORIDA POWER AND LIGHT COMPANY**

### **CONTAINER INSPECTION REPORTS**

The largest volume of petroleum products used at the FPL Plants and Terminals is received in bulk and stored in large-capacity, aboveground storage tanks. Other oils, additives, solvents, and lubricants are typically received in 55-gallon drums or smaller containers. As part of the Spill Prevention, Control, and Countermeasures (SPCC) requirements, scheduled inspection of all containers is important to prevent a potential spill. Therefore, the following inspection procedures have been formulated:

1. When a full drum of oil is trucked, unloaded, and moved to the storage site (drum rack) inside the plant/terminal, it shall be inspected for leaks and shipment damage (dents) by all employees who handle it.
2. Special attention shall be given to ensure that drum taps are properly threaded and installed in accordance with manufacturers' guidelines. A small sample shall be obtained to be certain the dispenser is functioning as designed (without leaks).
3. A visual inspection of all drum storage areas and drum racks shall be conducted weekly. Braces and supports shall be inspected for cracks or failures. The surrounding areas shall also be inspected to verify that no drums are slowly leaking and that any spilled oil has been cleaned up. The site shall maintain a record of such inspections. A sample inspection log follows.

## FLORIDA POWER AND LIGHT COMPANY CONTAINER INSPECTION RECORD

[illegible]

**FLORIDA POWER AND LIGHT COMPANY**  
**STORAGE TANK AND PIPING INSPECTION PROCEDURE**

All storage tanks, piping, joints, valve glands and bodies, pipeline supports, metal surfaces, and other aboveground equipment and facilities for transporting or holding oil will be visually checked by each employee as he pursues his daily work. Any and all discrepancies will be reported immediately to the appropriate supervisor.

A detailed and specific visual check of each storage tank system (as indicated above) will be made monthly and records of these inspections will be maintained at the facility. An example storage tank and piping inspection record is attached.

**FPL - STORAGE TANK AND PIPING INSPECTION RECORD**

MONTHLY INSPECTION (not to exceed 35 days)		DATE: _____					
INSPECTION ITEMS LEGEND: Y = YES, N = NO, NA = NOT APPLICABLE	TANK #	TANK #	TANK #	TANK #	TANK #	TANK #	TANK #
<b>PIPING COMPONENTS</b>							
Is the piping & components (valves, pumps, flanges, etc.) free of leaks, ruptures, or corrosion?							
Is the piping properly aligned and are supports/foundations and piping in good condition?							
<b>SECONDARY CONTAINMENT SYSTEM</b>							
Is the secondary containment, interstice, or spill container free of water or product?							
Is the containment free of debris or fire hazard?							
Is the containment valve operable?							
Are the containment egress pathways clear and gates/doors operable?							
Is the containment drain valve in the closed position except when opened to drain water?							
<b>STORAGE TANK COMPONENTS</b>							
Is the tank concrete pad, ringwall, or ground free of visible signs of leakage?							
Is the tank free of shell distortions, corrosion, cracks, wetting, discoloration, blistering or signs of settlement?							
Are the level controls, alarms, and in-line equipment operating properly?							
Is the tank exterior coating (paint) in good condition?							
Are the tank foundation/supports in good condition?							

Comments: \_\_\_\_\_

SIGNATURE OF INSPECTOR OR SUPERVISOR: \_\_\_\_\_

**FLORIDA POWER AND LIGHT COMPANY  
INSPECTION PROCEDURE  
DIKE DRAINAGE**

All storage tank dike field areas will be inspected weekly for water collection and after each rainfall event. Collection of water at the drainpipe inlet or diked area low point of a depth greater than 1 foot will necessitate drainage. Prior to drainage, the water will be carefully inspected for an oil sheen, which is defined as an iridescent appearance on the surface. If a sheen is observed, it will be reported to the oil spill coordinator for appropriate action prior to drainage. Action taken by the coordinator will be noted in the record. If there is not a sheen, the valve will be fully opened or the pump started. The dike field area will be checked periodically during the time it takes to drain the area. When empty, the valve will be immediately closed or the pump stopped. Appropriate record entries will be completed as shown on the example form on the next page.



C-6

**FLORIDA POWER AND LIGHT COMPANY  
DRAINAGE INSPECTION PROCEDURE**

The stormwater pond will be checked after each rainfall event to inspect for an oil sheen. If a sheen is observed, it will be reported to the oil spill coordinator for appropriate action. Action taken by the coordinator will be noted in the record.

INSPECTION LOG FOR STORMWATER PONDS				
POND	WATER LEVEL	OIL SHEEN (YES/NO)	INSPECTOR	DATE
RETENTION POND				

*[Intentionally Blank]*

**FLORIDA POWER AND LIGHT COMPANY**  
**API STANDARD 653 STORAGE TANK INSPECTION PROCEDURE**

All field-erected aboveground storage tanks are inspected in accordance with API Standard 653. This standard covers carbon and low alloy steel tanks built to API Standard 650 and its predecessor 12C. This standard provides recommended practices for the maintenance inspection, repair, alteration, relocation, and reconstruction of such tanks.

As part of the API 653 evaluation, a detailed report documenting the condition of each tank is provided and an appropriate re-inspection interval is established based on the API 653 Standard. Any necessary repairs are made prior to the tank being returned to service.

*[Intentionally Blank]*

## APPENDIX D: COMMUNICATIONS PLAN

### D.1 GENERAL

(b) (7)(F), (b) (3)

Table D-1 provides telephone numbers of Telecommunications Department personnel who are available to assist any FPL Group facility, should the need arise. Figure D-1 identifies the radio supervisors by region as well as the coordinator of FPL Group's Mobile Command Center.

**TABLE D-1  
TELECOMMUNICATIONS PHONE NUMBERS**

NAME	LOCATION	PHONE NUMBER	PAGER NUMBER
Dave Gutierrez	State Wide Operations	(b) (6) Mobile (305) 863-4010 Miami Office (561) 640-2479 WPB Office	(305) 719-8711
Kevin Gordon	Incident Commander FPL CRT (Corporate Response Team)	(b) (6) Mobile (561) 845-4875 Office	

### D.2 LAND MOBILE RADIO

Handheld radios will be issued to members of the Onsite Response Team and Corporate Response Team, as appropriate, by the Communications Unit Leader. Radio communications will be established in the VHF band.

FPL Group's plant radio communications infrastructure utilizes power utility band conventional VHF systems at all the fossil plants with the exception of PFL, which uses a conventional UHF system, and PTF, which shares PTN's 900 Mhz trunking system. The FPL Group VHF plant radio communications infrastructure will be used for response operations where practical and available.

### **D.3 CELLULAR TELEPHONE**

Telecommunications maintains a ready-for-service stock of cellular telephones available for any type emergency. During a level II or III response, cellular telephones will be used to augment communications depending on the number of stationary telephones at the site.

Cellular telephones may also be used in response operations; however, land mobile radio will be established as the primary communications method between members of the Onsite Response Team.

### **D.4 WIRELINE TELEPHONES**

Additional telephone lines will be established at the facility depending on the number of Corporate Response Team personnel mobilized to the site. The Communications Unit Leader will oversee the establishment of wireline telephone services if/as required.

### **D.5 CONSTRUCTION/TOW VEHICLE**

This vehicle is capable of towing any of the trailers described below. It contains a concrete saw, a large drill press, and all of the large tools and hardware necessary for erection of towers as well as a portable AC generator.

#### **D.5.1 MOBILE REPEATER TRAILER**

The mobile repeater trailer has outdoor weatherproof cabinets used to mount various configurations of radio equipment used with deployable radio systems. This trailer also carries a 6 KW propane generator. It weighs 1,500 lbs, its overall length is 20', and uses a standard 2" pintle hook to attach to the towing vehicle.

#### **D.5.2 MATERIAL/WORK TRAILER**

The material/work trailer is a 8' H, 8' W, 16' D enclosed trailer. It can be used as a lockable material shelter and/or small radio maintenance shop. This trailer weighs 4,500 lbs, its overall length is 30', and it uses a standard 2 5/16 pintle hook to attach to the towing vehicle.

#### **D.5.3 SELF-STANDING TOWER TRAILER (2 ea.)**

The self-standing tower trailer is a fully self-contained radio site. It is self-powered (batteries & 6 KW propane generator) and features a 100' self-erecting unguyed antenna support structure capable of supporting a wind load of 14 sq.ft. of antennas in 70 Mph winds. The tower supports omnidirectional and positionable directional antennas. Positioning of the directional antennas is done via an electronically controlled ring rotator capable of 360' rotation. This system's purpose is to provide radio coverage over a range of 30 miles. It can be set up as a myriad of configurations, including as a free-standing repeater site, a voting receiver site, a telephone link, etc.

The weight of the crank-up tower trailer is 5 tons. Its overall length is 35'. It uses a standard 2 5/16" pintle hook to connect to the towing vehicle.

#### **D.5.4 GUYED TOWER TRAILER**

The guyed tower trailer holds a disassembled 200' ROHN #45G galvanized tower and all the necessary hardware to erect a structure capable of supporting a moderate number of antennas & feedlines for an extended period. The tower takes approximately 1 day to erect. This trailer weighs 2 tons, is 30' long overall, and uses a standard 2" pintle hook to attach to the towing vehicle.

#### **D.5.5 GUYED/CRANK-UP TOWER TRAILER**

The guyed/crank-up tower trailer holds a crank-up & guyed 100' aluminum tower and all the necessary hardware to erect a structure capable of supporting a moderate number of antennas & feedlines for an extended period. This trailer also includes a small equipment shelter and a 5 KW AC generator. The tower takes approximately 3 hours to erect. This trailer weighs 2,700 lbs, is 30' long overall, and uses a standard 2" pintle hook to attach to the towing vehicle.

#### **D.5.6 50 KW DIESEL GENERATOR TRAILER (4 ea.)**

The 50 KW diesel generator trailer holds an electric start 50 KW diesel generator and uses a standard 2" pintle hook to attach to the towing vehicle. It weighs 2 tons and is 15' long overall. It can be towed by the ERV and used as a remote (attached by a cable 200' long) source of power for extended periods as necessary.

#### **D.5.7 CABLE REEL TRAILER**

The cable reel trailer is capable of holding various transmission line, AC power, and guy wire reels required for deployable radio systems. It uses a standard 2" pintle hook to attach to the towing vehicle. It weighs 1 ton and its overall length is 10'.



## PGBU UHF and VHF PLANT RADIO SYSTEM - PORTABLE PROGRAMMING/INVENTORY

PPN				GRP 1				PSN				GRP 2				PCC				GRP 3				PMR				GRP 4				PRV				GRP 5			
Putnam				20				Sanford				96				Cape Canaveral				37				Martin				165				Riviera				35			
New TK250 =				0				TK250 =				62				TK250 =				6				CP200 =				93				New TK250 =				0			
New GP300 =				10				GP300 =				34				EX 500 =				4				GP300 =				16				New GP300 =				35			
Exist TK250 =				0				Exist TK250 =				0				HT750 =				7				GP 350 =				6				Exist TK250 =				0			
Exist GP300 =				10				Exist GP300 =				7				RPV516A				9				Exist GP300 =				50				Exist GP300 =				0			
CHANNEL	TX	RX	Descrptn	Tone	TX	RX	Descrptn	Tone	TX	RX	Descrptn	Tone	TX	RX	Descrptn	Tone	TX	RX	Descrptn	Tone	TX	RX	Descrptn	Tone	TX	RX	Descrptn	Tone	TX	RX	Descrptn	Tone							
1	158 250	153 680	RPT1	1	153 500	153 500	BSE1	1	153 680	153 680	BSE1	2	153 500	158 250	RPT1	1	153 515	153 515	BSE1	1																			
2	153 545	153 545	PP 1	3	153 545	153 545	PP 1	3	153 545	153 545	PP 1	3	153 425	159 660	RPT2	1	153 545	153 545	PP 1	3																			
3	153 635	153 635	PP 2	3	153 530	153 530	PP 7	3	153 635	153 635	PP 2	3	153 455	159 720	RPT3	3	153 635	153 635	PP 2	3																			
4	XXX	162.475	WX	CSQ	158 250	158 250	PP11	3	153 575	153 575	PP 8	3	158 175	151 985	RPT4	3	153 665	153 665	PP10	3																			
5					158 235	153 620	RPT3	1	XXX	162.55	WX	CSQ	153 590	153 470	T/A1	3	XXX	162.475	WX	CSQ																			
6					XXX	162.475	WX	CSQ					160 065	153 59	T/A2																								
7													160 065	160 065	T/A3																								
8					451 625	456 625	RPT 1						153 635	153 635	T/A4																								
9					451 050	456 050	RPT 2						153 545	153 545	T/A5																								
10													153 500	153 500	RPT Fail 1																								
11													153 425	153 425	RPT Fail 2																								
12													153 455	153 450	RPT Fail 3																								
13													158 175	158 175	RPT Fail 4																								
14													162 425		Weather																								
15																																							
16	153 680	153 680	T/A 1	1																																			

PPE				GRP 6				PFL				GRP 7				PCU				GRP 8				PFM				GRP 9				PMT				GRP 10			
Port Everglades				100				Fort Lauderdale				0				Cutler				5				Fort Myers				35				Manatee				100			
New TK2140 =				80				New TK250 =				0				New TK250 =				0				New TK250 =				29				TK250 =				20			
New GP300 =				20				New GP300 =				0				New GP300 =				5				New GP300 =				0				TK280 =				30			
Exist TK250 =				0				Exist TK250 =				0				Exist TK250 =				0				Exist TK250 =				6				TK2170 =				50			
Exist GP300 =				0				Exist GP300 =				0				Exist GP300 =				0				Exist GP300 =				0				Exist GP300 =				0			
CHANNEL	TX	RX	Descrptn	Tone	TX	RX	Descrptn	Tone	TX	RX	Descrptn	Tone	TX	RX	Descrptn	Tone	TX	RX	Descrptn	Tone	TX	RX	Descrptn	Tone	TX	RX	Descrptn	Tone	TX	RX	Descrptn	Tone							
1	159 540	153 125	RPT1	203 5	457 075	452 075	Ch 1	82 5	158 175	153 665	RPT1	2	153 125	153 125	BSE1	2	159 585	153 320	RPT1	1																			
2	154 490	159 930	BSE2	D565N	452 000	452 000	Ch 2	107 2	159 585	159 585	PP 3	3	159 540	159 540	BSE2	2	159 615	153 425	RPT2	1																			
3	159 780	159 780	BSE3	203 5	451 725	451 725	Ch 3	107 2	XXX	162.55	WX	CSQ	153 545	153 545	PP 1	3	158 235	153 620	RPT3	1																			
4	159 585	159 585	PP 3	103 5	457 525	457 525	Ch 4	107 2					153 635	153 635	PP 2	3	159 870	159 870	PP 6	3																			
5	159 615	159 615	PP 4	103 5	457 550	457 550	Ch 5	107 2					159 615	159 615	PP 4	3	159 735	159 735	PP12	3																			
6	159 825	159 825	PP 5	103 5	457 575	457 575	Ch 6	107 2					159 825	159 825	PP 5	3	159 780	159 780	PP13	3																			
7	159 870	159 870	PP 6	103 5	457 600	457 600	Ch 7	107 2					XXX	162.475	WX	CSQ	XXX	162.55	WX	CSQ																			
8	159 900	159 900	PP14	103 5	451 125	451 125	Ch 8	107 2											T/A 1	1																			
9	153 530	153 530	PP15	103 5	451 775	451 775	Ch 9	107 2											T/A 2	1																			
10	159 930	159 930	SIMLX	D565N	456 775	451 775	Ch 10	D152N											T/A 3	1																			
11		162 550	WX	CSQ															156 450	156 450	Marine 9	CSQ																	
12																			156 800	156 800	Marine 16	CSQ																	
13																			157 100	157 100	Marine 22	CSQ																	
14																			156 425	156 425	Marine 68	CSQ																	
15																			156 625	156 625	Marine 72	CSQ																	
16										153 665	153 665	T/A 1	2						156 925	156 925	Marine 78	CSQ																	

PWC			GRP9	
Power Plant West County			85	
New HT750 =			85	
CHANNEL	TX	RX	Descrptn	Tone
1	158 525	151 520	RPT1	114
2	160 050	151 535	RPT2	116
3	160 140	151 490	RPT3	122
4		162 475	Weather	
5	T/A 1	151 5200		114
6	T/A 2	151 5350		116
7	T/A 3	151 4900		122
8				
9				
10				
11				
12				
13				
14				
15				
16				

TONES: 1 203 5  
2 151 4  
3 103 5  
4 82 5  
5 107 2  
6 D152N

- NOTES: 1 Total radios required by all locations = 355 (105 16 channel TK250 + 235 16 channel GP300s for plants + 15 160 channel TK250s for Juno)  
2 Total existing radios = 117 (67 GP300's and 50 TK250's)  
3 270 new radios available (181 GP300's and 89 TK250's) therefore 32 additional radios are available as spares  
4 13 spare GP300s will be programmed with SIMPLEX FREQUENCIES ONLY  
5 19 Spare TK250s will be programmed for ALL LOCATIONS (160 channels GRP 1-10)  
6 Frequencies licensed at PFL but implementation on hold  
7 Frequency Update 2/11/2010 D Gutierrez

**APPENDIX E**  
**SITE SAFETY AND HEALTH PLAN**

## APPENDIX E: SITE SAFETY AND HEALTH PLAN

### E.1 GENERAL

Personnel safety would be **the number one priority throughout the conduct of response operations**. Members of FPL's response organization would be expected to read and be thoroughly familiar with the contents of this plan. In addition, they would be expected to follow the safety and health guidelines summarized in this plan whenever they are engaged in response operations.

The ultimate responsibility for safety rests with the members of the Onsite Response Team. At all times, they would keep the following safety cycle in mind:

- **DECIDE** to work safely.
- **THINK** about possible unsafe acts.
- **STOP** if they observe unsafe conditions.
- **ACT** to do their job safely.

At the same time, they would watch out for their fellow workers. Whenever possible, they would adopt the buddy system.

### E.2 CHAIN OF COMMAND

Overall responsibility for dealing with safety and health considerations before and during response operations would rest with the **Oil Spill Coordinator**. The **Oil Spill Coordinator's** safety and health related duties would include:

- Ensuring that all members of the Onsite Response Team have received the necessary level of HAZWOPER training;
- Ensuring that all FPL safety policies, practices, and procedures are known and strictly adhered to during the conduct of response operations;
- Assisting in coordination of personnel exposure monitoring;
- Ensuring that there is an adequate supply of protective clothing and equipment for all personnel involved in response operations and that personal protective equipment is properly utilized throughout operations;
- Determining where first aid stations will be located, arranging for qualified

staffing at these stations, seeing that adequate first aid supplies are available, and assuring that the locations of first aid stations are clearly posted;

- Ensuring that decontamination stations are established and that all personnel are decontaminated before leaving their work stations;
- Maintaining regular communications with emergency medical teams and first aid stations;
- If necessary, establishing a safety and health awareness training program for contract personnel involved in response operations;
- Issuing Safety and Health Bulletins, as appropriate;
- Maintaining a record of all job-related injuries, including their cause, nature, and any corrective actions taken; and
- Serving as the principal point of contact for state and federal safety and health personnel assigned to monitor response operations.

The Riviera Plant and Martin Terminal oil spill response equipment would be deployed, operated, and retrieved by the members of the Onsite Response Team. The Onsite Response Team would be lead by the **Oil Spill Coordinator** who would be responsible for supervising response operations and ensuring that the operations are carried out in a safe and healthful fashion. In carrying out his responsibilities, the **Oil Spill Coordinator** would:

- Conduct a Site Characterization and Analysis to determine whether response operations can be initiated and carried out in a safe fashion.
- Ensure that members of the Onsite Response Team are aware of and take all appropriate actions to protect themselves from situations that pose a threat to their safety and health.
- Ensure that members of the Onsite Response Team have access to and wear appropriate protective clothing throughout the conduct of response operations.
- Ensure that members of the Onsite Response Team go through appropriate decontamination procedures during breaks and at the end of each shift.
- Suspend any activity that poses a threat to personnel safety and health that cannot be avoided or mitigated through the use of protective clothing

or the adoption of a safe operating procedure.

Members of the Onsite Response Team would be expected to know who the **Oil Spill Coordinator** is and immediately notify the **Oil Spill Coordinator** if:

- They observe an unsafe condition or act;
- They are ill or injured; or
- They observe someone else who is ill or injured.

Also, if they are unsure whether it is safe to proceed with an action or whether a situation poses a health risk to them or their fellow workers, they would be instructed to ask the **Oil Spill Coordinator** before they proceed with an action.

### **E.3 DUTIES AND RESPONSIBILITIES**

Members of the Onsite Response Team would be called upon to assist in the deployment, utilization and recovery of containment boom, skimmers, sorbent materials, and/or recovered oil and/or oily debris storage systems. These activities would include the handling of equipment, lines, and/or hoses, and/or the operation of winches, pumps, generators, cranes, small vessels, and/or vehicles. During the conduct of these operations, personnel may be exposed to chemical and/or physical hazards such as:

- Inhalation of vapors from the spilled oil;
- Irritation of the skin from contact with spilled oil;
- Elevated or lowered body temperature due to exposure to high or low air or water temperatures;
- Exhaustion from long hours of demanding work;
- Stress from pressure, particularly in the initial stage of response operations;
- Back injuries due to lifting heavy loads improperly;
- Cuts, bruises, sprains, and strains; and
- Excessive noise.

To eliminate or reduce these hazards to the maximum extent possible, it would be imperative that personnel follow the procedures prescribed in the following sections of this plan.

#### **E.4 SITE CHARACTERIZATION AND ANALYSIS**

The commitment of manpower resources to response operations would not be made until a site characterization and analysis has been completed. The **Oil Spill Coordinator** would be responsible for organizing and supervising the conduct of the characterization and analysis. The activities that would be conducted during a site characterization include:

- Performing a preliminary evaluation;
- Conducting monitoring operations, if necessary;
- Identifying chemical and physical hazards;
- Identifying risks;
- Identifying personal protective equipment requirements; and
- Communicating information on hazards to response personnel.

Each of these activities is elaborated upon below.

##### **a. Preliminary Evaluation**

Prior to site entry by the Onsite Response Team, the **Oil Spill Coordinator** would perform a preliminary evaluation of the site characteristics in order to aid in the selection of appropriate personnel protection methods. If necessary, the **Oil Spill Coordinator** would use direct-reading instruments and/or other rapid determination methods to determine if there is:

- An inhalation hazard that is immediately dangerous to life and health (IDLH);
- An explosive atmosphere; or
- Any other IDLH hazards.

##### **b. Monitoring**

If the preliminary evaluation indicates the potential for IDLH conditions, the site characterization process would be expanded to include an air monitoring program with direct reading instruments. An ongoing air monitoring program would be implemented to provide supplementary information on potential air contaminants and to allow for revisions in personal protective equipment requirements.

#### **c. Hazards Identification**

Based on the results of the preliminary evaluation, the **Oil Spill Coordinator** would select the appropriate level of personal protective equipment and enter the site to perform a thorough site characterization to determine whether chemical and/or physical hazards are present at the site. Hazards identified during the site characterization would include those based on:

- Location and size of the area affected;
- Topography and substrate composition (e.g., rocks, gravel, sand, vegetation);
- Weather conditions (e.g., temperature, humidity, precipitation);
- Potential response methods and equipment; and
- Identification of product spilled.

#### **d. Risk Identification**

Once the presence and concentrations of specific safety and health hazards have been identified, the **Oil Spill Coordinator** would identify the risks associated with these hazards and incorporate this information into the hazard communication program.

#### **e. Personal Protective Equipment**

Based on the results of the site characterization process, the appropriate level of personal protective equipment would be selected for use by response personnel. As response operations progress, the **Oil Spill Coordinator** would determine whether modifications to personal protective equipment requirements are warranted due to changes in worker exposure to chemical and/or physical hazards.

#### **f. Hazards Communication**

Chemical and physical hazards identified during the site characterization process would be documented for inclusion in safety briefings on hazard communications that would be given to response personnel before they enter the site.

### **E.5 CHEMICAL HAZARDS**

The following petroleum products are handled at the Martin Terminal:

- No. 6 fuel oil
- No. 2 fuel oil
- Lube oil
- Mineral oil

Table E-1 provides general information on these products, and Appendix A contains Chemical Data and Material Safety Data Sheets for this product. General safety and health guidelines to be observed when working on a spill involving these products are provided below.

#### **a. General Protection Guidelines**

These oils have a high flash point; however, they are combustible when exposed to heat or an open flame. If any of these products are involved in a spill:

- Secure all open flames; no smoking;
- Do not use open lights;
- Put on necessary protective clothing; and
- Secure the area.

#### **b. Treatment of Inhalation Problems**

No. 2 fuel oil can cause inhalation problems. Respiratory protective equipment may be needed, particularly in the early stage of response operations. No. 6 fuel oil should not require respiratory protective equipment in well ventilated areas. In confined spaces, self-contained breathing apparatus may be required.



**TABLE E-1  
DESCRIPTIVE INFORMATION ON  
OIL HANDLED AT  
RIVIERA PLANT AND MARTIN TERMINAL**

NAME	APPEARANCE	ODOR	HAZARDS
No. 2 Fuel Oil	Clear to Light Amber	Mild Petroleum	<ul style="list-style-type: none"> <li>• Combustible. May be Ignited By Heat or an Open Flame.</li> <li>• Avoid inhalation.</li> <li>• Irritating to Skin and Eyes; Avoid Contact.</li> <li>• Avoid Ingestion.</li> </ul>
No. 6 Fuel Oil	Viscous Dark Liquid	Sulfur	<ul style="list-style-type: none"> <li>• Combustible. May be Ignited By Heat or an Open Flame.</li> <li>• Avoid inhalation.</li> <li>• Irritating to Skin and Eyes; Avoid Contact.</li> <li>• Avoid Ingestion.</li> </ul>
Lube Oil	Light Pale Liquid	Mild Odor	<ul style="list-style-type: none"> <li>• Combustible. May be Ignited By Heat or an Open Flame.</li> <li>• Avoid inhalation.</li> <li>• Irritating to Skin and Eyes; Avoid Contact.</li> <li>• Avoid Ingestion.</li> </ul>
Mineral Oil	Colorless to Light Brown	Motor Oil-Like Odor	<ul style="list-style-type: none"> <li>• Combustible. May be Ignited By Heat or an Open Flame.</li> <li>• Avoid inhalation.</li> <li>• Irritating to Skin and Eyes; Avoid Contact.</li> <li>• Avoid Ingestion.</li> </ul>

If respiratory equipment is required, the Oil Spill Coordinator, or his designee, would contact:

Safety Equipment Company  
6852 Hanging Moss Road  
Orlando, Florida 32807  
(407) 678-2701  
(407) 471-5246

Signs and symptoms of oil inhalation are dizziness, drowsiness, headaches, nausea, vomiting, and loss of coordination. If a person is overcome by vapors:

- Do not attempt to rescue the person without wearing a self-contained breathing apparatus (SCBA);
- Remove the victim to a fresh air area;
- If the victim is not breathing, administer artificial respiration; and
- Summon medical assistance by dialing 911.

#### **c. Treatment of Skin Contact**

Impervious gloves and other protective clothing should be worn to protect the skin from contact with oil. Skin that comes into contact with oil may become irritated. Prolonged or related exposures may cause a skin rash called dermatitis. If oil penetrates clothing, the clothing should be removed and washed. An exposed skin area should be washed with water and a mild soap.

Goggles should be worn to protect eyes from exposure to oil if a splash hazard exists. If eyes are exposed to oil, they should be flushed with large quantities of clear water for 15 minutes.

#### **d. Treatment of Ingestion Problems**

Adherence to strict personal hygiene and decontamination procedures should be followed at all times. Oil ingestion can cause severe discomfort and nausea. If oil enters the mouth, it should be rinsed with water until the taste disappears. Vomiting should be avoided because it may cause oil to be aspirated into the lungs. Medical assistance should be sought if oil is swallowed.

### **E.6 PHYSICAL HAZARDS**

#### **a. Hypothermia**

Although unlikely, wintertime air and water temperatures may be low enough to expose the body to rapid heat loss and a cooling of the body's core temperature. In cold water, the body will lose heat many times faster than in the air. Even outside of the water, wet clothing will conduct heat away from the body much faster than dry clothing. Rapid heat loss can cause loss of consciousness and, if not checked, death. To protect against hypothermia, personnel should wear proper protective clothing. If clothing becomes wet, personnel should move to a protected, preferably warm area until their clothes dry or can be changed out for dry clothes.

#### **b. Dehydration and Heat Stress**

Oil spill response operations can involve strenuous activities that can, even in relatively cool weather, lead to excessive sweating. This is particularly true when a person wears protective clothing that may reduce the body's ability to discard excess heat. This situation may lead to dehydration, heat rash, heat cramps, heat exhaustion, and possible heat stroke. When a person begins to feel light headed or sluggish, they should take time to sit down, preferably in a shaded area, and rehydrate their body by drinking plenty of non-caffeinated, non-alcoholic fluids.

#### **c. Noise**

Oil spill response operations may require the use of generators, pumps, compressors, engines, and other equipment that can generate high levels of noise. Short-term exposure to extremely loud noise and/or long-term exposure to low level noise can cause hearing loss. Personnel assigned to a high noise area should wear proper hearing protection.

#### d. Lifting hazards

During response operations, there may be several instances when personnel would be called on to lift and/or carry a heavy load, sometimes over rough or unstable terrain.

When doing so, personnel should be instructed to observe the following rules:

- **Test the load** - before attempting to lift a load, test it to make sure it can be moved safely;
- **Plan the move** - check the travel path to make sure it is clear;
- **Use a wide, balanced stance with one foot ahead of the other;**
- **Keep the back in its normal arched position while lifting** - bend at the knees or hips to distribute the forces more evenly;
- **Bring the load as close to the body as possible** - do not let the back become the fulcrum;
- **Keep the head and shoulders up** - maintain the arch in the lower back;
- **Tighten the stomach muscles** - this unloads the spine and puts the weight on the stomach;
- **Lift with the legs and stand up in a smooth, even motion** - use leg strength to lift, straightening the knees and hips;
- **Move the feet to change direction** - do not twist at the waist, as this will stress the supporting structures of the back; and
- **Communicate with a buddy if they are involved in the lift** - this reduces the likelihood of sudden or jerking movements.

#### e. Slips, Trips, and Falls

Oily surfaces are extremely slippery. Even when wearing slip-resistant boots, it may be hazardous to walk through an oily area. Also, the decks of ships, the scene of shoreline protection and/or clean-up operations, and equipment staging areas can contain numerous obstacles. When personnel are engaged in response operations, they should:

- Be on the lookout for oily surfaces;
- When on a boat, use handrails and safety lines;

- Be aware of where they are and what is going on around them;
- Before engaging in an activity, look around them and make sure there is nothing in their way; and
- Never engage in horseplay.

#### **f. Personal Protective Equipment**

The primary objective of personal protective equipment is to prevent the skin from coming into contact with oil. When working offshore, the equipment would be likely to include a rain slicker, rubber gloves, rubber boots, and a hard hat. Duct tape should be wrapped around the wrists and ankles to seal the rain slicker to the gloves and boots and prevent the migration of oil up the arms and legs.

Onshore, a light weight, disposal suit and cloth gloves can be worn, particularly in warm to hot weather. These items do not provide the same degree of protection; however, they can be changed if they become heavily oiled.

When personnel are engaged in an activity where oil can splash into the eyes, or they are using or are around equipment that produces flying objects, they should wear safety glasses. If they wear contact lenses, they should wear tight fitting goggles.

### **E.7 BOAT AND WATER SAFETY**

When personnel are boarding a boat, they should:

- Know who the vessel captain is - he/she has the ultimate authority over their actions on the boat;
- Know who their supervisor is - he/she knows what their duties are and can answer any safety or health questions that they have;
- Become familiar with the layout of the boat;
- Know where emergency equipment, like fire extinguishers, life jackets, life rings, and life rafts, is stored;
- Know how to use emergency equipment; and
- Do not board a vessel without a U.S. Coast Guard approved personal

flotation device - wear the device properly.

While personnel are onboard the boat, they should:

- Watch out for slippery deck surfaces, especially if they are covered or stained with oil - use sorbent pads to clean up oil and/or to improve traction along walkways;
- Watch out for erratic boat motions in rough seas - use safety lines when they are working on the deck;
- Avoid taking medicines for seasickness - they may make them drowsy;
- Do not become distracted by the task at hand - know where they are and what is going on around them; and
- Be aware of ropes and lines on deck - keep clear of lines being deployed.

If personnel fall overboard in cold water, they should:

- Orientate themselves to floating hazards in the area;
- Move away from hazards if in danger; otherwise stay put until rescued;
- Look for a flotation aid thrown from a vessel;
- Avoid unnecessary movement of arms and legs;
- Float as still as possible, with legs together, elbows close to sides, and arms folded across the front of life jacket;
- Try to keep head and neck out of water; and
- Do not panic.

If personnel observe someone fall overboard, they should:

- Not take their eyes off the victim;
- Point to the victim with their arm while they raise the alarm; notify others by calling "man overboard"; and
- Throw a flotation aid to the victim; do not throw device at victim, but near

enough to victim that victim can easily swim to device.

If a victim is semiconscious or unconscious, personnel should:

- Check for breathing and heart beat - administer CPR, if necessary;
- Move the victim to a warm environment;
- Remove the victim's clothes - do not massage the skin;
- Insulate the victim from further heat loss - wrap the victim in a blanket;
- Do not attempt aggressive warming;
- Gentle rewarming can be attempted by placing a bottle filled with warm water next to the victim's head, neck, arm pits, or groin; and
- Do not give the victim anything to eat or drink, and **never** offer alcohol.

## E.8 VEHICLE SAFETY

Personnel called upon to operate a vehicle should:

- Always carry a valid driver's license;
- Wear a seat belt;
- Obey all of the rules of the road, including posted speed limits;
- Practice defensive driving by looking out for other vehicles, heavy equipment, and pedestrians; and
- **Never** engage in horseplay.

Pedestrians should always be on the lookout for moving vehicles.

## E.9 AIRCRAFT SAFETY

Personnel on an aircraft would be subject to security procedures normally used by all U.S. carriers.

When personnel are approaching an aircraft, they should:

- Look for the pilot to give them a hand signal when it is safe to approach the aircraft;
- Identify objects extending from the exterior of the aircraft (antennas, hoses, bottles, floats); and
- Not approach the aircraft until it has come to a complete stop, the engines have been shut down, wheels chocked, and wing markers in place.

When personnel approach a helicopter, they should:

- Always walk toward the helicopter from the front;
- **Never** walk toward or around the rear of a helicopter, even when it is in idle;
- Wear a hard hat, and use their hand to secure it to their head;
- If their hard hat blows off, do not chase it; wait for the helicopter to take off or shutdown before retrieving the hat;
- Step only on indicated step areas; and
- Wear ear protection, if available.

When personnel are onboard an aircraft, they should:

- Weigh in and report their weight to the pilot;
- Obey all signs, including "No Smoking";
- Understand the aircraft safety features as described by the pilot; locate all emergency exits and read instructions for accessing the exits; and
- Remain seated and wear their seat belt at all times.

## E.10 EQUIPMENT SAFETY

The key to equipment safety is to know how to operate a piece of equipment properly **before** using the equipment. Personnel who are unsure how to use a piece of equipment should ask their supervisor. Also, they should:



- Keep alert around moving equipment - understand and follow the signals of the equipment operator;
- When operating equipment, be sure to wear the proper safety equipment - safety glasses, hearing protection, hard hat, etc;
- When operating equipment, do not wear loose clothing or rings;
- Familiarize themselves with the equipment - know any safety features and how to shut equipment down if a problem arises;
- Make sure all engine and electrically driven equipment is in proper operating condition, including ground wires;
- Do not operate electrical equipment while standing in water;
- When working around equipment, wear the proper safety equipment, keep alert, and move away if they sense that the equipment poses a threat to their safety and/or health; and
- **Never** engage in horseplay while using or working around equipment.

## E.11 PERSONAL HYGIENE

Good personal hygiene practices are essential to maintaining a state of health during oil spill response operations. Personnel should remember that working with oil and oily wastes is dirty work, and not allow the nature of the work to lead them to forsake basic personal hygiene considerations. The following guidelines are recommended for all members of the Onsite Response Team:

- Take a daily shower, including hair shampoo, before reporting to work;
- While showering, check for unusual rashes, cuts, infections, etc;
- Report any unusual condition to their supervisor;
- On sunny days, apply protective sun screen to exposed skin areas;
- Use a barrier cream on hands before putting on protective gloves;
- If skin becomes contaminated with oil, report to a decontamination area and wash the affected area thoroughly with soap and water;
- If oil gets into their eyes, report to a decontamination area and rinse their eyes for at least 15 minutes with clear water. Report the incident to their supervisor;

- If they are injured or become ill at the work site, report the injury or illness to their supervisor without delay;
- Do not touch food or a glass containing liquid that they intend to drink with oily gloves or hands;
- Do not track oil into "clean" areas; and
- Do not litter while on the work site.

## **E.12 DECONTAMINATION**

One or more decontamination areas would be set up during response operations.

These areas would be used only for decontamination at the work site; they would not serve as a substitute for personal hygiene at home.

Decontamination areas would be designed to protect personnel health and to prevent the spread of contamination into "clean" areas. In the field, it may not be possible for personnel to remove all of their contaminated clothes each time they take a break from work. It would be essential, however, that they clean their hands and faces to avoid inadvertently ingesting oil or spreading oil to otherwise protected parts of their bodies.

In the field, they would be provided with:

- Soap, water, paper towels, waterless hand cleaner, and/or other materials for washing their hands and face;
- An impermeable surface to sit on;
- Refuse containers; and
- An eyewash station.

At the end of a shift, personnel would be required to go through full decontamination. Normally, they would report to a "dirty" zone where they would remove all oiled protective clothing. They would do this carefully to avoid contaminating clean clothing. Next, they would move to the "transition" zone where they would remove work clothes and clean themselves to remove all traces of oil. Finally, they would proceed to the "clean" zone to put on clean clothing and leave for home. Clothes that are contaminated with oil would be left at the site for cleaning. Clothes would be disposed

of that cannot be properly cleaned. Therefore, it is important that personnel bring an extra set of clean work clothes with them when they report to the site.

# MATERIAL SAFETY DATA SHEET

## No. 6 Fuel Oil MSDS No. 9907

### 1. CHEMICAL PRODUCT and COMPANY INFORMATION (rev. Jan-98)

**Amerada Hess Corporation**  
**1 Hess Plaza**  
**Woodbridge, NJ 07095-0961**

**EMERGENCY TELEPHONE NUMBER (24 hrs): CHEMTREC (800) 424-9300**

**COMPANY CONTACT (business hours):** Corporate Safety (732) 750-6000

**SYNONYMS:** #6 Fuel Oil; 6 Oil; Bunker C; Bunkers; High Sulfur Residual Fuel Oil; Low Sulfur Residual Fuel Oil; Residual Fuel Oil See Section 16 for abbreviations and acronyms.

### 2. COMPOSITION and INFORMATION ON INGREDIENTS (rev. Jan-98)

#### INGREDIENT NAME EXPOSURE LIMITS

##### CONCENTRATION

##### PERCENT BY WEIGHT

Fuel Oil, Residual

CAS NUMBER: 68476-33-5

OSHA PEL-TWA: 5 mg/m<sup>3</sup> as mineral oil mist

ACGIH TLV-TWA: 5 mg/m<sup>3</sup> as mineral oil mist\*

\*1997 NOIC: sum of 15 NTP-listed polynuclear aromatic hydrocarbons 0.005 mg/m<sup>3</sup>, A1  
 100

Hydrogen Sulfide (H<sub>2</sub>S)

CAS NUMBER: 7783-06-4

OSHA PEL-Ceiling/Peak: 20 / 50 ppm

ACGIH TLV-TWA/STEL: 10 / 15 ppm

< trace - see below >

A complex combination of heavy (high boiling point) petroleum hydrocarbons. The amount of sulfur varies with product specification and does not affect the health and safety properties as outlined in this Material Safety Data Sheet.

Hydrogen Sulfide (H<sub>2</sub>S) may be present in trace quantities (by weight), but may accumulate to toxic concentrations such as in tank headspace. The presence of H<sub>2</sub>S is highly variable, unpredictable and does not correlate with sulfur content. Studies with similar products have shown that 1 ppm H<sub>2</sub>S by weight in liquid may produce 100 ppm or more H<sub>2</sub>S in the vapor headspace of the storage tank .

### 3. HAZARDS IDENTIFICATION (rev. Jan-98; Tox-98)

#### EMERGENCY OVERVIEW CAUTION!

#### COMBUSTIBLE LIQUID - SLIGHT TO MODERATE IRRITANT - EFFECTS CENTRAL NERVOUS SYSTEM - HARMFUL OR FATAL IF SWALLOWED

Moderate fire hazard. Avoid breathing vapors or mists. May cause dizziness and drowsiness. May cause moderate eye irritation and skin irritation. Long-term, repeated exposure may cause skin cancer. Hot liquid may cause thermal burns. If ingested, do NOT induce vomiting, as this may cause chemical pneumonia (fluid in the lungs).

HYDROGEN SULFIDE (toxic gas) may accumulate in tank vapor space. High concentration may cause immediate unconsciousness - death may result unless victim is promptly and successfully resuscitated.

Hydrogen sulfide causes eye irritation.

#### EYES

Contact with eyes may cause mild to moderate irritation.

#### SKIN

May cause skin irritation with prolonged or repeated contact. Practically non-toxic if absorbed

following acute (single) exposure. May cause dermal sensitization. Liquid may be hot (typically 110 - 120 °F) which could cause 1st, 2nd, or 3rd degree thermal burns.

NFPA 704 (Section 16)

## **INGESTION**

This material has a low order of acute toxicity. If large quantities are ingested, nausea, vomiting and diarrhea may result. Ingestion may also cause effects similar to inhalation of the product. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

## **INHALATION**

Because of its low vapor pressure, this product presents a minimal inhalation hazard at ambient temperature. Upon heating, fumes may be evolved. Inhalation of fumes or mist may result in respiratory tract irritation and central nervous system (brain) effects may include headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure, and death.

**WARNING:** the burning of any hydrocarbon as a fuel in an area without adequate ventilation may result in hazardous levels of combustion products, including carbon monoxide, and inadequate oxygen levels, which may cause unconsciousness, suffocation, and death.

**WARNING:** Irritating and toxic hydrogen sulfide gas may be found in confined vapor spaces. Greater than 15 - 20 ppm continuous exposure can cause mucous membrane and respiratory tract irritation. 50 – 500 ppm can cause headache, nausea, and dizziness, loss of reasoning and balance, difficulty in breathing, fluid in the lungs, and possible loss of consciousness. Greater than 500 ppm can cause rapid or immediate unconsciousness due to respiratory paralysis and death by suffocation unless the victim is removed from exposure and successfully resuscitated. The "rotten egg" odor of hydrogen sulfide is not a reliable indicator for warning of exposure, since olfactory fatigue (loss of smell) readily occurs, especially at concentrations above 50 ppm. At high concentrations, the victim may not even recognize the odor before becoming unconscious.

## **CHRONIC and CARCINOGENICITY**

Similar products produced skin cancer and systemic toxicity in laboratory animals following repeated applications. The significance of these results to human exposures has not been determined – see Section 11, Toxicological Information.

## **MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**

Irritation from skin exposure may aggravate existing open wounds, skin disorders, and dermatitis (rash).

## **FUEL OIL COMBUSTION ASH**

Trace amounts of nickel, vanadium, and other metals in slurry oil can become concentrated in the oxide form in combustion ash deposits. Vanadium is a toxic metal affecting a number of organ systems. Nickel is a suspect human carcinogen (lung, nasal, sinus), an eye, nose, and throat irritant, and can cause allergic skin reaction in some individuals. See Section 7 for appropriate work practices.

## **4. FIRST AID MEASURES (rev. Jan-98; Tox-98)**

### **EYES**

In case of contact with eyes, immediately flush with clean, low-pressure water for at least 15 min. Hold eyelids open to ensure adequate flushing. Seek medical attention.

### **SKIN**

Remove contaminated clothing. Wash contaminated areas thoroughly with soap and water or waterless hand cleanser. Obtain medical attention if irritation or redness develops. Thermal burns require immediate medical attention depending on the severity and the area of the body burned.

### **INGESTION**

DO NOT INDUCE VOMITING. Do not give liquids. Obtain immediate medical attention. If spontaneous vomiting occurs, lean victim forward to reduce the risk of aspiration. Monitor for breathing difficulties. Small amounts of material which enter the mouth should be rinsed out until the taste is dissipated.

### **INHALATION**

Remove person to fresh air. If person is not breathing provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.

## **5. FIRE FIGHTING MEASURES (rev. Oct-96)**

### **FLAMMABLE PROPERTIES:**

FLASH POINT: > 150 °F (>65.5 °C) (minimum) ASTM D-93

AUTOIGNITION TEMPERATURE: > 765 °F (>407 °C)

OSHA/NFPA FLAMMABILITY CLASS: 3A (COMBUSTIBLE)

LOWER EXPLOSIVE LIMIT (%): N/D

UPPER EXPLOSIVE LIMIT (%): N/D

### **FIRE AND EXPLOSION HAZARDS**

Vapors may be ignited rapidly when exposed to heat, spark, open flame or other source of ignition. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard.

**CAUTION:** flammable vapor production at ambient temperature in the open is expected to be minimal unless the oil is heated above its flash point. However, industry experience indicates that light hydrocarbon vapors can build up in the headspace of storage tanks at temperatures below the flash point of the oil, presenting a flammability and explosion hazard. Tank headspaces should be regarded a potentially flammable, since the oil's flash point can not be regarded as a reliable indicator of the potential flammability in tank headspaces.

### **EXTINGUISHING MEDIA**

**SMALL FIRES:** Any extinguisher suitable for Class B fires, dry chemical, CO<sub>2</sub>, water spray, fire fighting foam, or Halon.

**LARGE FIRES:** Water spray, fog or fire fighting foam. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers.

### **FIRE FIGHTING INSTRUCTIONS**

Small fires in the incipient (beginning) stage may typically be extinguished using handheld portable fire extinguishers and other fire fighting equipment.

Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full facepiece and full protective clothing. Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require

withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied fire fighting foam.

See Section 16 for the NFPA 704 Hazard Rating.

## **6. ACCIDENTAL RELEASE MEASURES** (rev. Jan-98)

### **ACTIVATE FACILITY'S SPILL CONTINGENCY OR EMERGENCY RESPONSE PLAN.**

Evacuate nonessential personnel and remove or secure all ignition sources. Consider wind direction; stay upwind and uphill, if possible. Evaluate the direction of product travel, diking, sewers, etc. to confirm spill areas. Carefully contain and stop the source of the spill, if safe to do so. Protect bodies of water by diking, absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of fire fighting foam may be useful in certain situations to reduce vapors. Take up with sand or other oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container for reclamation or disposal. Response and clean-up crews must be properly trained and must utilize proper protective equipment.

## **7. HANDLING and STORAGE** (rev. Jan-98)

### **HANDLING PRECAUTIONS**

Product is generally transported and stored hot (typical 110 - 120 °F). Handle as a combustible liquid. Keep away from heat, sparks, and open flame! Electrical equipment should be approved for classified area. Bond and ground containers during product transfer to reduce the possibility of static-initiated fire or explosion.

### **STORAGE PRECAUTIONS**

Keep away from flame, sparks, excessive temperatures and open flame. Use approved vented containers. Keep containers closed and clearly labeled. Empty product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition. Store in a well-ventilated area. This storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". Avoid storage near incompatible materials. The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks". Hydrogen sulfide may accumulate in tanks and bulk transport compartments. Consider appropriate respiratory protection (see Section 8). Stand upwind. Avoid vapors when opening hatches and dome covers. Confined spaces should be ventilated prior to entry.

### **WORK/HYGIENIC PRACTICES**

Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure. Use good personal hygiene practices. Avoid repeated and/or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. Do not use as a cleaning solvent on the skin. Do not use gasoline or solvents (naphtha, kerosene, etc.) for washing this product from exposed skin areas. Waterless hand cleaners are effective. Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves.

### **OTHER/GENERAL PROTECTION**

Petroleum industry experience indicates that a program providing for good personal hygiene, proper use of personal protective equipment, and minimizing the repeated and prolonged exposure to liquids and fumes, as outlined in this MSDS, is effective in reducing or eliminating the carcinogenic risk of high boiling aromatic oils (polynuclear aromatic hydrocarbons) to humans.

**FUEL OIL ASH PRODUCTS**

Personnel exposed to ash should wear appropriate protective clothing (example, DuPont Tyvek®), wash skin thoroughly, launder contaminated clothing separately, and wear respiratory protection approved for use against toxic metal dusts (such as HEPA filter cartridges). Wetted-down combustion ash may evolve toxic hydrogen sulfide (H<sub>2</sub>S) - confined spaces should be tested for H<sub>2</sub>S prior to entry if ash is wetted.

**8. EXPOSURE CONTROLS and PERSONAL PROTECTION (rev. Jan-98)****ENGINEERING CONTROLS**

Use adequate ventilation to keep vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces.

**EYE/FACE PROTECTION**

Safety glasses or goggles are recommended where there is a possibility of splashing or spraying

**SKIN PROTECTION**

Gloves constructed of nitrile, neoprene, or PVC are recommended. Chemical protective clothing such as of E.I. DuPont Tyvek QC®, Saranex®, TyChem® or equivalent recommended based on degree of exposure. Note: The resistance of specific material may vary from product to product as well as with degree of exposure. Consult manufacturer specifications for further information

**RESPIRATORY PROTECTION**

If a hydrogen sulfide hazard is present (that is, exposure potential above H<sub>2</sub>S permissible exposure limit), use a positive-pressure SCBA or Type C supplied air respirator with escape bottle. Where it has been determined that there is no hydrogen sulfide exposure hazard (that is, exposure potential below H<sub>2</sub>S permissible exposure limit), a NIOSH/ MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited. Refer to OSHA 29 CFR 1910.134, ANSI Z88.2-1992, NIOSH Respirator Decision Logic, and the manufacturer for additional guidance on respiratory protection selection.

Use a positive pressure, air-supplied respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection.

**9. PHYSICAL and CHEMICAL PROPERTIES (rev. Jan-01)****APPEARANCE**

Black, viscous liquid

**ODOR**

Heavy, petroleum/asphalt-type odor

Hydrogen sulfide (H<sub>2</sub>S) has a rotten egg "sulfurous" odor. This odor should not be used as a warning property of toxic levels because H<sub>2</sub>S can overwhelm and deaden the sense of smell. Also, the odor of H<sub>2</sub>S in heavy oils can easily be masked by the petroleum-like odor of the oil. Therefore, the smell of H<sub>2</sub>S should not be used as an indicator of a hazardous condition - a H<sub>2</sub>S meter or colorimetric indicating tubes are typically used to determine the concentration of H<sub>2</sub>S.

**BASIC PHYSICAL PROPERTIES**

BOILING RANGE: > 500 °F (> 260 °C)



VAPOR PRESSURE: <0.1 psia @ 70 °F (21 °C)  
 VAPOR DENSITY (air = 1): NA  
 SPECIFIC GRAVITY (H<sub>2</sub>O = 1): 0.876 – 1.000 (API 30.0 – 10.0)  
 PERCENT VOLATILES: Negligible  
 EVAPORATION RATE: negligible  
 SOLUBILITY (H<sub>2</sub>O): negligible

#### **10. STABILITY and REACTIVITY** (rev. Jan-94)

**STABILITY:** Stable. Hazardous polymerization will not occur.

#### **CONDITIONS TO AVOID and INCOMPATIBLE MATERIALS**

Avoid high temperatures, open flames, sparks, welding, smoking and other ignition sources. Keep away from strong oxidizers.

#### **HAZARDOUS DECOMPOSITION PRODUCTS:**

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

#### **11. TOXICOLOGICAL PROPERTIES** (rev. Jan-98)

##### **ACUTE TOXICITY**

Acute dermal LD50 (rabbits): > 5 ml/kg Acute oral LD50 (rats): 5.1 ml/kg  
 Primary dermal irritation: slightly irritating (rabbits) Draize eye irritation: mildly irritating (rabbits)  
 Guinea pig sensitization: mildly sensitizing

##### **CHRONIC EFFECTS AND CARCINOGENICITY**

Carcinogenicity: **OSHA:** NO **IARC:** 2B (animal) **NTP:** YES **ACGIH:** 1997 NOIC: A1  
 This material contains polynuclear aromatic hydrocarbons (PNAs), some of which are animal carcinogens. Studies have shown that similar products produce skin tumors in laboratory animals following repeated applications without washing or removal. The significance of this finding to human exposure has not been determined. Other studies with active skin carcinogens have shown that washing the animal's skin with soap and water between applications reduced tumor formation. The presence of carcinogenic PNAs indicates that precautions should be taken to minimize repeated and prolonged inhalation of fumes or mists.

##### **MUTAGENICITY (genetic effects)**

Materials of similar composition have been positive in mutagenicity studies.

#### **12. ECOLOGICAL INFORMATION** (rev. Jan-98)

Keep out of sewers, drainage and waterways. Report spills and releases, as applicable, under Federal and State regulations.

#### **13. DISPOSAL CONSIDERATIONS** (rev. Jan-98)

Consult federal, state and local waste regulations to determine appropriate disposal options. Combustion ash may be a characteristic hazardous waste.

#### **14. TRANSPORTATION INFORMATION** (rev. Jan-98)

PROPER SHIPPING NAME: Combustible liquid, n.o.s. (No. 6 Fuel Oil)  
 HAZARD CLASS and PACKING GROUP: Combustible Liquid , PG III  
 DOT IDENTIFICATION NUMBER: NA 1993  
 DOT SHIPPING LABEL: None

#### **15. REGULATORY INFORMATION** (rev. Feb-01)

##### **U.S. FEDERAL, STATE and LOCAL REGULATORY INFORMATION**

This product and its constituents listed herein are on the EPA TSCA Inventory. Any spill or

uncontrolled release of this product, including any substantial threat of release, may be subject to federal, state and/or local reporting requirements. This product and/or its constituents may also be subject to other regulations at the state and/or local level. Consult those regulations applicable to your facility/operation.

### **CLEAN WATER ACT (OIL SPILLS)**

Any spill or release of this product to "navigable waters" (essentially any surface water, including certain wetlands) or adjoining shorelines sufficient to cause a visible sheen or deposit of a sludge or emulsion must be reported immediately to the National Response Center (1-800-424-8802) or, if not practical, the U.S. Coast Guard with follow-up to the National Response Center, as required by U.S. Federal Law. Also contact appropriate state and local regulatory agencies as required.

### **CERCLA SECTION 103 and SARA SECTION 304 (RELEASE TO THE ENVIRONMENT)**

The CERCLA definition of hazardous substances contains a "petroleum exclusion" clause which exempts crude oil, refined, and unrefined petroleum products and any indigenous components of such. However, other federal reporting requirements (e.g., SARA Section 304 as well as the Clean Water Act if the spill occurs on navigable waters) may still apply.

### **SARA SECTION 311/312 - HAZARD CLASSES**

**ACUTE HEALTH CHRONIC HEALTH FIRE SUDDEN RELEASE OF PRESSURE REACTIVE**

**X X X -- --**

### **SARA SECTION 313 - SUPPLIER NOTIFICATION**

This product may contain listed chemicals below the *de minimis* levels which therefore are not subject to the supplier notification requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and of 40 CFR 372. If you may be required to report releases of chemicals listed in 40 CFR 372.28, you may contact Amerada Hess Corporate Safety if you require additional information regarding this product.

### **CANADIAN REGULATORY INFORMATION (WHMIS)**

Class B, Division 3 (Combustible Liquid)

### **16. OTHER INFORMATION (rev. Feb-01)**

**NFPA® HAZARD RATING** HEALTH: 0 Negligible

FIRE: 2 Moderate

REACTIVITY: 0 Negligible

**HMIS® HAZARD RATING** HEALTH: 1\* Slight

FIRE: 2 Moderate

REACTIVITY: 0 Negligible

\*Chronic

**SPECIAL HAZARDS:** Container vapor space may contain hydrogen sulfide (poison gas).

**SUPERSEDES MSDS DATED:** 01/05/01

### **ABBREVIATIONS:**

AP = Approximately < = Less than > = Greater than

N/A = Not Applicable N/D = Not Determined ppm = parts per million

### **ACRONYMS:**

ACGIH American Conference of Governmental Industrial Hygienists

AIHA American Industrial Hygiene Association

ANSI American National Standards Institute (212)642-4900

API American Petroleum Institute (202)682-8000

CERCLA Comprehensive Emergency Response, Compensation, and Liability Act

DOT U.S. Department of Transportation [General info: (800)467-4922]  
 EPA U.S. Environmental Protection Agency  
 HMIS Hazardous Materials Information System  
 IARC International Agency For Research On Cancer  
 MSHA Mine Safety and Health Administration  
 NFPA National Fire Protection Association (617)770-3000  
 NIOSH National Institute of Occupational Safety and Health  
 NOIC Notice of Intended Change (proposed change to ACGIH TLV)  
 NTP National Toxicology Program  
 OPA Oil Pollution Act of 1990  
 OSHA U.S. Occupational Safety & Health Administration  
 PEL Permissible Exposure Limit (OSHA)  
 RCRA Resource Conservation and Recovery Act  
 REL Recommended Exposure Limit (NIOSH)  
 SARA Superfund Amendments and  
 Reauthorization Act of 1986 Title III  
 SCBA Self-Contained Breathing Apparatus  
 SPCC Spill Prevention, Control, and Countermeasures  
 STEL Short-Term Exposure Limit (generally 15 minutes)  
 TLV Threshold Limit Value (ACGIH)  
 TSCA Toxic Substances Control Act  
 TWA Time Weighted Average (8 hr.)  
 WEEL Workplace Environmental ExposureLevel (AIHA)  
 WHMIS Canadian Workplace Hazardous

#### Materials Information System

##### **DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES**

Information presented herein has been compiled from sources considered to be dependable, and is accurate and reliable to the best of our knowledge and belief, but is not guaranteed to be so. Since conditions of use are beyond our control, we make no warranties, expressed or implied, except those that may be contained in our written contract of sale or acknowledgment. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material, even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in their use of the material.

# Material Safety Data Sheet for Mineral Oil

**CrossTrans 106, 206 & 306** Page 1 of 5

Revised: 10-30-00

MSDS #: crostran

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** CrossTrans 106, 206 & 306

**General Uses:** Electrical Insulating Oil.

**Product Description:** Amber Liquid, Hydrocarbon Odor.

### MANUFACTURER: EMERGENCY TELEPHONE NUMBERS

Cross Oil Refining & Marketing, Inc.

484 East Sixth Street **(870) 725-3611, Ext.163 [USA]**

Smackover, Arkansas 71762

MSDS prepared by: Clark B. Smith (870) 725-3611, Ext. 128

## 2. COMPOSITION INFORMATION

% Vol.

**CHEMICAL FAMILY:** Petroleum Hydrocarbon **Common Name:** Naphthenic Oil 99.7 to 99.92%  
Antioxidant 0.3 to 0.08%

**HAZARDOUS INGREDIENTS:** None Known **Exposure Limits (Oil Mist):TWA**

ACGIH,TLV(ppm) 5

**CAS #:** Grades < 100 SUS @ 100 F 64742-53-6 OSHA,PELS (ppm) 5

128-39-2 NIOSH, TWA (ppm) 5

## 3. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW:

Clear light to dark amber liquid. Mild hydrocarbon odor. Can burn in a fire.

### POTENTIAL HEALTH EFFECTS:

**INHALATION:** Will not produce vapors unless heated to temperatures of ~300 °F.

**EYE CONTACT:** Irritating, but will not permanently injure eye tissue.

**SKIN CONTACT:** Prolonged or repeated contact may cause skin irritation.

**INGESTION:** Small amounts (tablespoonful) swallowed are not likely to cause injury. Larger amounts may cause nausea and vomiting. Consult a physician promptly.

**CHRONIC (CANCER) INFORMATION:** IARC Monographs state that when laboratory animals are exposed to severely hydrotreated oils, such as these product(s), there is insufficient evidence for cancer. Thus, these oils are **Unlabeled** in accordance with 29 CFR 1910.1200.

## 4. FIRST AID MEASURES

**EYE CONTACT:** Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists.

**SKIN:** Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

**INGESTION:** If more than several mouthfuls have been swallowed, give two glasses of water (16 Oz.). Get medical attention.

**INHALATION:** If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or symptoms persist.

## 5. FIRE FIGHTING MEASURES

Flash Point, °C (Method) See Section 9 (COC)

Ignition Temp.°F Not Determined

Flammability Limits (%) Not Determined

## RECOMMENDED FIRE EXTINGUISHING AGENTS AND SPECIAL PROCEDURES

According to NFPA Guide, use water spray, dry chemical, foam, or carbon dioxide. Water or foam may cause frothing. Use water to cool fire exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for persons attempting to stop the leak.

**UNUSUAL OR EXPLOSIVE HAZARDS:** None

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## 6. ACCIDENTAL RELEASE MEASURES

Notify the appropriate authorities immediately. Contain spill, if possible. Avoid breathing vapor. Use self-contained

breathing apparatus or supplied air for large spills or in confined areas. Wipe up or use suitable absorbent material and shovel into appropriate container for disposal. Prevent entry into sewers or waterways. Avoid contact with skin, eyes or clothing.

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## 7. HANDLING AND STORAGE

**PRECAUTIONS:** Minimum feasible handling temperatures should be maintained. Periods of exposure to high temperature should be minimized. Water contamination should be avoided.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### PROTECTIVE EQUIPMENT

**EYE/FACE PROTECTION:** Chemical-type goggles or face shield recommended to prevent eye exposure.

**SKIN PROTECTION:** Workers should wash exposed skin several times daily with soap and water. Soiled clothing should be laundered or dry-cleaned at least weekly.

**RESPIRATORY PROTECTION:** Airborne concentrations should be kept to lowest levels. If vapor is generated, use respirator approved by OSHA or NIOSH as appropriate. Supplied air respiratory protection should be used for cleaning large spills or upon entry into tanks, vessels, or other confined spaces. See Exposure Limit below.

**VENTILATION:** Must be adequate to meet exposure limits below.

**EXPOSURE LIMIT (TOTAL PRODUCT)**

5 mg/m<sup>3</sup> for mineral oil mist over an 8 hour daily exposure (ACGIH).

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** Bright, clear liquid. Mineral odor.

**% VOC:** 100 (Can be totally burned)

**FREEZING POINT:** Not applicable

**VAPOR PRESSURE:** Insignificant @ atmospheric pressure

**pH:** Not available

**SOLUBILITY IN WATER:** Insoluble

**VAPOR DENSITY (Air=1):** 1+

**VISCOSITY, FLASH, °C SPECIFIC GRAVITY, °C BOILING**

**GRADE cSt @ 40 °C (COC) GRAVITY (IP-346) POINT, °F**

106 & 206 9.58 152 .896 1.5 288+

306 10.33 150 .891 1.5 288+

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## 10. STABILITY AND REACTIVITY

☐ This material reacts violently with strong oxidizers.

☐ Evolves toxic levels of carbon monoxide, carbon dioxide irritating aldehydes and ketones when heated to combustion.

☐ Hazardous polymerization does not occur.

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## 11. TOXICOLOGICAL INFORMATION

**TOXOLOGICAL INFORMATION (ANIMAL TOXICITY DATA)**

Median Lethal Dose (LD50 LC50) (Species)

Oral: Believed to be >5g/kg (rat); practically non-toxic

Inhalation: Not Determined

Dermal: Believed to be >3 g/kg (rat); practically non-toxic.

Irritation Index: Estimation of Irritation (Species).

Skin: Believed to be <0.5/8.0 (rabbit); no appreciable effect

Eyes: Believed to be <15/110 (rabbit); no appreciable effect

Sensitization: Not Available

Other: None

The International Agency for Research on Cancer (IARC), one of the Occupational Safety and Health Association's (OSHA) authorities for establishing carcinogenic potential, has specifically evaluated Naphthenic Oils. IARC found that Mildly Hydrotreated (Hydrofinished) Naphthenic Oils are carcinogenic to laboratory animals. **IARC has NOT found Severely Hydrotreated Naphthenic Oils to be carcinogenic. These products are classified as Severely (Not Mildly) Hydrotreated under both IARC**

**and OSHA definitions.**

One refiner reports that a lifetime dermal application of this type oil produced skin masses on mice, which correlated with the skin irritation response levels of individual test animals. Additional studies attribute these masses to a weak promotional activity. These studies also showed that this product is not a mutagen, not a tumor initiator, and not a complete chemical carcinogen. Under normal anticipated conditions of use, this product should not present a risk to human health.

**12. ECOLOGICAL INFORMATION**

No data is available on the adverse effects of this material on the environment. A film or sheen will cause discoloration of the water surface or adjoining shoreline.

**13. DISPOSAL CONSIDERATIONS**

This product has been evaluated for RCRA characteristics and *does not* meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This product is subject in service to chemical alteration, which may render the resulting material hazardous.

**14. TRANSPORT INFORMATION**

**DOT**

PRODUCT CLASS PLACARD NO. PACKAGING

Not App. Not.App Not App. Not App.

**15. REGULATORY INFORMATION**

**TSCA:** All components of this material are listed in the U.S. TSCA Inventory.

**OSHA:** IARC Monographs state that when laboratory animals are exposed to severely hydrotreated oils, such as these products(s), there is insufficient evidence for cancer. Thus, these product are **Unlabeled** in accordance with 29 CFR 1910.1200

**SARA TITLE III** Section 302/304 Extremely Hazardous Substance None  
Section 311 - EPA Hazard Categories

*Immediate Delayed Sudden*

*Health Health Fire Pressure Release Reactive*

None None Minor None None

> 250 °F

Section 313 Toxic Chemicals None

**CERCLA** Section 102(a) Hazardous Substance No Reportable  
Quantity (RQ) Substances

**CANADIAN DOMESTIC SUBSTANCES LIST** - - All components of this material are listed.

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**16. OTHER INFORMATION Hazard Ratings Recommended for Containers**

NFPA HMIS

Fire 1 Health 1

Health 1 Flammability 1

Reactivity 0 Reactivity 0

Specific Hazard none Personal Protection Index B

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Cross Oil Refining & Marketing Company, Inc.. The data on this sheet is related only to the specific material designated herein. Cross Oil Refining & Marketing Co., Inc. assumes no legal responsibility for use or reliance upon these data.

NA = Not Available Not App. = Not Applicable

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**17. PRODUCT LABEL**

Product Trade Name: CrossTrans 106, 206 or 306 Date: 10-30-00

Tank Car Number: NA Cross Truck Loading Manifest No: NA

**WARNING**

**Avoid Prolonged Breathing of Mist or Spray.** Average exposure to airborne mist for an 8-hour workday

should not exceed 5.0 milligrams of mist per cubic meter of air.

**Avoid Eye and Skin Contact:** Wear oil-impervious protective clothing. If clothes become contaminated, change to clean clothing after thoroughly washing exposed skin with soap and warm water.

**FIRST AID**

**Inhalation:** If overcome by fumes, remove from exposure immediately and call a physician.

**Skin:** Wash with warm water and soap until the exposed area is clean.

**Eyes:** Flush with water for at least fifteen (15) minutes. See physician if symptoms persist.

**Ingestion:** Do not induce vomiting. Obtain medical assistance. Small amounts that accidentally enter through the mouth should be rinsed out until no taste of it remains.

**FIRE CONTROL**

Use water spray or fog, chemical foam, dry powder or carbon dioxide.

**SPILL / LEAK**

Add absorbent (sand, sawdust, etc.) to the spill area. Contain spill. Advise State Environmental Protection Agency, if required. Put recovered material in an appropriate container and dispose of according to federal, state, and local regulations. For guidance call Cross Oil Refining & Marketing Co., Inc. at (870) 725-3611, Ext. 163

**STORAGE**

Store in original or equivalent container. Store at the lowest practical temperature. Keep container closed when not in use. Do not apply heat or flame to the container

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**APPENDIX F**  
**MEDIA RELATIONS**



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## APPENDIX F: MEDIA RELATIONS

### MARKETING AND COMMUNICATIONS EMERGENCY PROCEDURES

#### 1. MARKETING AND COMMUNICATIONS

FPL, working through Marketing and Communications, is responsible for the development and coordination of all information issued to the media public, employees, and shareholders. Generally, media inquiries should be referred to Marketing and Communications when:

- Issues have financial, legal, or regulatory implications.
- A condition or incident may have system-wide implications.
- A problem attracts statewide or national media attention.
- Civil authorities are involved.
- Loss of life or injury occurs.

The primary objective of Marketing and Communications is to provide timely and consistent information to the news media, the public, employees, and shareholders, and to support communications to appropriate government agencies. In the event that an oil spill incident occurs that results in the activation of the Emergency Response Organization described in this Manual, a qualified person from Marketing and Communications would assume the responsibilities of the Public Information Officer in FPL's Emergency Response Organization.

#### 2. NOTIFICATIONS

In the event of an oil spill incident at an FPL site, it is important that the FPL Marketing and Communications Duty Officer receive prompt notification. This is essential to be responsive to media inquiries. Depending on the magnitude of the incident, Marketing and Communications personnel may be dispatched to the location to handle public information activities and/or assistance may be required of specially trained area media liaisons.

#### DURING NORMAL WORKING HOURS

The Marketing and Communications Media Relations staff can be contacted by calling **561-694-4442 from 8 a.m. to 5:00 p.m. weekdays.** A Duty Officer is designated to respond to media inquiries. The Vice President of Marketing & Marketing and Communications (CC/JB) and the Manager of Public Relations (CC/GO) are also available to provide communications counsel and direction. A list of names and phone numbers for Marketing and Communications duty personnel and managers appears in Table F-1.

### **AFTER-HOURS, WEEKENDS & HOLIDAYS**

The after-hours line to reach the Marketing and Communications Duty Officer is **561-694-4442**. The Marketing and Communications Duty Officer is responsible for all corporate-related media inquiries and he/she is on-call via telephone or beeper.

**Table F-1**  
**NAMES AND PHONE NUMBERS OF MARKETING AND COMMUNICATIONS PERSONNEL**

<b>POSITIONS</b>	<b>NAMES</b>	<b>OFFICE</b>	<b>MOBILE</b>
CC Duty Officer 24 Hour Number	Rotates weekly	888-867-3050	(b) (6)
24 Hour Back-up Number		561-694-4442	
Manager	Steve Stengel	561-694-4340	
Public Information Officer	Greg Brostowicz	561-694-3745	

### **3. EMERGENCY COMMUNICATIONS**

Refusal to cooperate with the media and provide whatever assistance is possible permits speculation, rumor and conjecture to take the place of fact. As a consequence, the company may be vulnerable to unfounded charges or subject to unjustified legal claims for damages or restrictive legislation adversely affecting operations.

If a significant event takes place at an FPL facility, the news media may arrive on the scene to report the event. If a designated spokesperson is not at the scene when reporters arrive, members of the media should be greeted courteously and directed to: (1) contact Marketing and Communications for information at the 24 Hour phone number noted above; and/or (2) directed to wait at a location where a spokesman will be made available at a specified time. Permission to enter secured areas should be denied for safety reasons, but may be evaluated once an escort is available. Continue to refer media inquiries to Marketing and Communications until a designated spokesman is available locally.

Certain situations may require someone other than the Marketing and Communications spokesperson to respond to news media inquiries. If Marketing and Communications cannot provide a spokesperson immediately, they will provide guidance on who should assume that role and how to respond to questions. It is company policy that such arrangements are made with the prior knowledge and authorization of Marketing and Communications to ensure that company positions and activities are communicated in a consistent manner.

This overview of Marketing and Communications procedures for emergencies and other critical incidents is supported by a Marketing and Communications Emergency Response Organization and certain incident-specific communications support plans maintained by the department. Included in the *Marketing and Communications Handbook* are emergency plans and news media procedures, including incident-specific plans for oil spills. The handbook is periodically updated and distributed to Marketing and Communications staff and selected executives, media liaisons and field contacts. For more information, contact Marketing and Communications.

Consistent with the primary objective of Marketing and Communications, FPL's media and public information contingencies provide for both an *initial response phase* and a *longer-term recovery phase*.

### **Initial Response Phase**

***Initial Statement*** – A “sample” initial statement is included in this Appendix. To make the “sample” statement incident-specific and accurate, the Marketing and Communications Officer or individual assuming responsibility for the function should work with the On-scene Commander or COSRT Incident Commander to prepare the statement.

As determined by the Marketing and Communications Officer, the initial statement will be used to make callouts or respond verbally to news media inquiries. As appropriate, the Marketing and Communications Officer will develop an initial, incident-specific policy on *how* or *if* FPL will allow/facilitate requests for television taping and photography. All follow-up, or questions beyond the scope of the initial statement, should be referred to the Marketing and Communications Officer. The Marketing and Communications Officer will be responsible for issuing all written news releases or public statements.

### **Key Messages**

- FPL has preplanned, government-approved Facility Response Plans for the facilities covered by this Manual. These plans describe oil spill removal organizations and equipment that would be called upon to initiate spill containment and cleanup operations.
- *(as appropriate)* Government agencies have been notified and are working with FPL.
- If onsite reporting/taping is initially being denied to the news media, it's likely for safety or other critical reasons and will be reevaluated at the earliest possible opportunity.

### **Longer-Term Recovery Phase**

***Corporate and Field Media Relations Activities*** – The Marketing and Communications Officer will evaluate the deployment of media relations or area liaison personnel to the affected field location. The Marketing and Communications Officer additionally will monitor and make public relations recommendations, approve and issue all subsequent written news releases and news statements,

and direct all other assigned communications duties, including activation of the Marketing and Communications emergency response organization, as appropriate.

### ***Key Messages***

- According to plan, FPL has established a Unified Command and is coordinating its response operations with all federal, state, and local authorities; public information will be jointly coordinated and situation updates will be issued on a regular schedule *[establish where briefings will be held (if appropriate), who the participants will be in addition to FPL, and what time regularly scheduled news statements/updates will be issued]*.
- FPL is a leader in providing safe, reliable, and cost-effective products and services in an environmentally responsible manner. It is the company's policy – should a spill occur as a result of FPL operations at its facilities – to undertake whatever actions are required to mount and sustain control and/or response operations.

<b>Background Statement to Media</b>
--------------------------------------

## **FPL ANNUALLY CONDUCTS OIL SPILL TRAINING EXERCISE**

FPL annually conducts oil spill training exercises. These exercises are typically conducted in cooperation with applicable federal and state agencies.

FPL maintains Facility Response Plans and other support documents, and regularly conducts training exercises in connection with its electrical generating power plant sites. FPL's plans are developed and exercise in compliance with provisions of the Federal Oil Pollution Act of 1990 and contingency planning requirements of the applicable State.

The FPL training exercises allow the utility and local, state, and federal agencies to participate in simulated oil spill response drills. This helps ensure that all parties can move quickly and efficiently to minimize any spill in the unlikely event an incident should take place.

As part of its emergency plans, FPL trains personnel in oil spill prevention and response activities, including deployment of containment and cleanup equipment. FPL additionally maintains an inventory of oil spill response equipment at each of its power plants. Additional equipment and personnel resources are available through a number of private oil spill removal organizations.

<b>Sample Standby Statement to Media</b>
--

My name is \_\_\_\_\_. I work for FPL and I am \_\_\_\_\_ (*title and/or what you do*). I have some brief information about the oil spill incident at \_\_\_\_\_ (*location*). Please appreciate that the details we have at this time are based on the earliest reports and we are now trying to verify other information that we hope to have available at a later time.

You should know that our preplanned Facility Response Plan has been activated, and specialist personnel are already responding to the situation. All appropriate government agencies have been notified of the incident according to our plan.

***(Use only known facts. Do NOT speculate.)***

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Location: \_\_\_\_\_

Facts of what happened: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Deaths or injuries (*if known: NO names, NO speculation*): \_\_\_\_\_

Existing hazard or situation: \_\_\_\_\_

Corrective actions being taken: \_\_\_\_\_

Cause (*ONLY if known for sure*): \_\_\_\_\_

Name and phone number of designated spokesperson (*for follow-up, additional questions*): \_\_\_\_\_

\_\_\_\_\_

###

<b>Media Statement – Marketing and Communications Department</b>
--

**FPL REPORTS OIL SPILL AT \_\_\_\_\_**

FPL reports a fuel oil spill of approximately \_\_\_\_\_ barrels early this morning in/at \_\_\_\_\_. *(Enter detail if available. For example: "the spill occurred at a pump flange as oil was being pumped into a holding tank from a tanker at \_\_\_\_\_.")*

FPL immediately activated its Onsite Response Team and notified state, federal, and local agencies. Special onsite equipment to contain the spill is being deployed and FPL Corporate Response Team is en route to the scene.

The spill was discovered at \_\_\_\_\_ a.m/p.m. by \_\_\_\_\_. The oil discharge was stopped at about \_\_\_\_\_ a.m/p.m. when pumping operations were halted. The spill was believed to have begun at about \_\_\_\_\_ a.m/p.m.

Assessment of the situation is underway and FPL will provide further updates this morning/afternoon.

###



<b>Media Statement – Joint Information Center</b>
---

**UNIFIED COMMAND STRUCTURE FORMED;  
MEDIA INFORMATION CENTER TO OPEN**

FPL officials, U.S. Coast Guard, and authorities have established a Unified Command structure to handle response efforts in today's oil spill in \_\_\_\_\_ (*location*).

In addition, a Joint Information Center has been opened. A news briefing will be held at \_\_\_\_\_ a.m/p.m. today in connection with the oil spill response and recovery effort. Unified Command representatives from FPL, the U.S. Coast Guard, and the will be available, including:

Federal On-Scene Coordinator:		U.S. Coast Guard
State On-Scene Coordinator:		(Agency) _____
FPL Incident Commander:		
FPL Senior Executive:		

Media representatives are invited to the Joint Information Center located at \_\_\_\_\_.

Phone inquiries from the *news media only* should be directed to FPL Marketing and Communications at 1-888-867-3050.

###

<b>Media Statement – Joint Information Center</b>
---

## OIL CONTAINMENT AND RECOVERY EFFORTS UNDERWAY

FPL and federal and state government agencies report that containment and recovery efforts are underway to minimize damage from this morning's oil spill at/in \_\_\_\_\_.

***If applicable:***

In addition, the U.S. Coast Guard has closed \_\_\_\_\_ (*on-water location*). No vessels will be permitted to enter or leave (*describe area*). Also, an exclusion zone has been established extending from \_\_\_\_\_ on the east/south to \_\_\_\_\_ on the west/north. No public access will be permitted within this area.

FPL and oil spill removal organizations are deploying containment boom to prevent the oil slick from spreading further (*describe area attempting to protect*). More than \_\_\_\_\_ feet of containment boom have been positioned at various locations within the port, including (*list unique and/or sensitive areas*).

Oil recovery devices are being deployed in the spill area. (*Number of*) \_\_\_\_\_ oil spill vacuum trucks will be used to remove oil from the water's surface inside the port. Additional equipment such as boats, barges, pumps, and collection tanks will be moved into place to supplement the equipment stored at the port for initial response to oil spills.

In addition to response teams from FPL and contractors, support and guidance is being provide by various organizations, including the U.S. Coast Guard, Department of Environmental Protection (*or applicable agency*), the \_\_\_\_\_ Port Authority, and others (*contractors, etc.*).

Members of the public or businesses located in the vicinity of the oil spill who have questions about boat traffic issues should call \_\_\_\_\_.

Members of the public with questions regarding private property cleanup and/or claims should call FPL at \_\_\_\_\_.

###

<b>Media Statement – Joint Information Center</b>
---

**PUBLIC CAUTIONED TO AVOID EXPOSURE TO OIL**

FPL and the members of Unified Command are asking the public to avoid areas where they could be exposed to oil and oil fumes as a result of today's oil spill at/in \_\_\_\_\_. While recent air quality tests in the area indicate there is no hazard from oil fumes, officials urge the public to be aware that excessive exposure to the oil can result in the following:

- Redness and drying of the skin.
- Irritation of the eyes and respiratory tract.
- Headache, dizziness, and nausea.
- Other adverse health effects.

###

<b>Media Statement – Joint Information Center</b>
---

**FPL SEEKING TRAINED VOLUNTEERS  
TO ASSIST IN WILDLIFE PROTECTION EFFORTS**

In coordination with \_\_\_\_\_ (*e.g., wildlife rehabilitation organization*), FPL has opened a facility to clean birds and other wildlife affected by the oil spill.

Volunteers with background in animal care, such as veterinarians, veterinarian technicians, and animal wildlife specialists, are being sought to assist in that effort. Training will be held at \_\_\_\_\_ at \_\_\_\_\_ a.m/p.m. for qualified volunteers. The training is necessary to ensure proper handling of wildlife during recovery and cleaning activities.

Members of the community also may assist by donating cleaning supplies, including liquid dish detergent, bleach, newspapers, paper towels, playpens, Q-Tips, four-inch-square cotton gauze, and garden hoses. For more information, interested volunteers should call \_\_\_\_\_ (*area code/phone*).

Representatives from the U.S. Fish and Wildlife Service and \_\_\_\_\_ (*other applicable agency*) are also assisting in the wildlife protection and rehabilitation efforts.

###

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**APPENDIX G**  
**LIST OF ACRONYMS, DEFINITIONS, AND REFERENCES**



## APPENDIX G: LIST OF ACRONYMS AND DEFINITIONS

This glossary contains definitions of terms that will be used frequently during the course of response operations.

**ACP.** Area Contingency Plan.

**Activation.** The process of mobilizing personnel and/or equipment within the response organization to engage in response operations.

**Activator.** An individual in the response organization whose responsibilities include notifying other individuals or groups within the organization to mobilize personnel and/or equipment.

**Addspack.** Aerial Dispersant.

**Agency Representative.** Individual assigned to an incident from an agency who has been delegated full authority to make decisions on all matters affecting that agency's participation in response operations.

**Allocated Resources.** Resources dispatched to an incident that are not yet checked-in and available for an assignment to a Division/Group.

**Assigned Tactical Resources.** Performing an active assignment in a Division/Group.

**Assisting Agency.** An agency contributing suppression, rescue, support, or service resources to another agency.

**Available Tactical Resources.** Ready for assignment. All resources in staging areas are available tactical resources.

**Average Most Probable Discharge.** A discharge of the lesser of 50 barrels or 1 percent of the volume of the worst case discharge.

**Barrel (bbl).** A barrel of oil equals 42 gallons (U.S.) at 60 degrees Fahrenheit.

**Bioremediation.** An oil spill cleanup technique using nutrients or a mixture of nutrients and bacteria to facilitate the degradation of the oil by microorganisms.

**Boom.** A piece of equipment or a strategy used to either contain free floating oil to a confined area or protect an uncontaminated area from intrusion by oil.

**Briefing Meeting.** Held to review Incident Action Plan for next operational period.

**Camp.** A geographical site, within the general incident area, separate from the base, equipped and staffed to provide food, water, and sanitary services to incident personnel.



**Captain of the Port Zone.** A zone specified in 33 CFR Part 3 and the seaward extension of that zone to the outer boundary of the exclusive economic zone.

**CERCLA.** Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

**CFR.** Code of Federal Regulations.

**Check-in.** Location where assigned resources check-in at an incident. The locations are: incident command post (resources unit), incident base, staging areas, aircraft bases, division supervisors (for direct line assignment).

**Clear Text.** The use of plain English in radio communications transmissions. No ten codes are used when using clear text.

**Coastal Waters.** All U.S. waters subject to the tide, U.S. waters of the Great Lakes specified ports and harbors on the inland rivers, waters of the contiguous zone (12 n. mi.) or other waters subject to discharges in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act. These waters include those contained within the Exclusive Economic Zone (200 n. mi.).

**Command.** The act of controlling manpower and equipment resources by virtue of explicit or delegated authority.

**Command Staff.** A group comprised of: Incident Commander, Corporate Communication Officer, External Affairs Officer, Safety Officer, Legal Officer, and Deputy Incident Commander.

**Command Staff Meeting.** Held to determine progress made to date, ensure implementations of current Incident Action Plan, and to establish overall strategic objectives for next operational period.

**Containment Boom.** Rigid and/or inflatable device of standard length to contain floating oil on water or prevent oil from contaminating specific areas.

**COPT.** Captain of the Port.

**CWA.** Clean Water Act.

**Decontamination.** The process of removing oil contamination from personnel, clothing, and equipment to preclude the occurrence of foreseeable adverse health effects.

**Demobilization.** The de-activation of equipment, personnel, and other resources involved in response operations.

**Detailed Incident Assessment.** An analysis process involving the gathering of information on what has occurred and what is being done to control the source and respond to the incident.

**Discharge.** Any spillage, leaking, pumping, pouring, emitting, emptying, or dumping.

**Dispatch.** The implementation of a command decision to move a resource or resources from one place to another.

**Dispatch Center.** A facility in the Command Post from which resources are directly assigned to an incident.

**Dispersants.** Chemicals that can be applied to an oil spill to aid the natural process in breaking up the oil. There are three types of dispersants: water-based, solvent-based, and concentrates. Use of dispersants is subject to On-Scene Coordinator approval, with approval of the Environmental Protection Agency representative to the Regional Response Team and the concurrence of the state with jurisdiction over the navigable waters polluted by the spill.

**Emergency.** The phase of response operations where activities are conducted in a "reactive" mode, according to a pre-planned strategy, such as notification, activation, and onsite response.

**EPA.** U.S. Environmental Protection Agency.

**FDEP.** Florida Department of Environmental Protection.

**Federal On-Scene Coordinator.** USCG or EPA representative that provides overall coordination of clean-up activities.

**FOSC.** Federal On-Scene Coordinator.

**FPL.** Florida Power & Light Company.

**General Plan.** A schedule that describes the activities to be performed and the major equipment and manpower resources to be utilized to respond to an incident, in a comprehensive and well organized fashion, from the outset through to the completion of operations.

**Group.** Established to divide response operations into functional areas.

**GT-185.** Commonly used weir skimmer coupled with an Archimedes style pump.

**Harmful Quantity.** Discharge that violate applicable water quality standards or causes a film or sheen upon, or discoloration of, the surface of the water or adjoining shorelines or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining surfaces.

**Hazardous Substance.** Substance designated by the EPA in 40 CFR Section 116.4.

**HAZMAT.** Hazardous materials or hazardous substances, exposure to which may

result in adverse effects on health or safety of employees.

**HAZWOPER.** Hazardous Waste Operations and Emergency Response Regulations published by OSHA to cover worker safety and health aspects of response operations.

**ICS.** Incident Command System.

**Incident.** An occurrence or event, either human-caused or natural phenomena, that requires action by emergency service personnel to prevent or minimize loss of life or damage to property and/or natural resources.

**Incident Action Plan.** A highly structured document comprised of a series of forms that collectively organize and present information on the manpower, equipment, and support resources that will be needed to implement the General Plan on a daily basis.

**Incident Commander.** The individual who is vested with the authority for the overall management of response operations.

**Incident Command Post (ICP).** That location at which all primary command functions are executed.

**Incident Command System (ICS).** The combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, with responsibility for the management of assigned resources at an incident.

**Initial Briefing Meeting.** Held to brief personnel on the contents of the General Plan and Initial Incident Action Plan.

**Initial Incident Briefing Meeting.** Held to develop a comprehensive, accurate, and up-to-date understanding of the incident, nature of status of control operations, and nature and status of response operations; ensure the adequacy of control and response operations; begin to organize control and response operations; and prepare for interactions with outside world.

**Initial Planning Meeting.** Held to review and approve general plan and commission development of Initial Incident Action Plan.

**Initial Tactical Operations Planning Meeting.** Held immediately after General Plan approval meeting. The General Plan is used to identify field activities for next operational period.

**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, it means the area shoreward of the lines of demarcation (COLREG lines) defined in Sections 80.740 - 80.850 of Title 33 of the CFR.

**Jurisdictional Agency.** The agency having jurisdiction and responsibility for a specific geographic area and/or resource.

**Level I or "Small" Incident.** Average most probable discharge.

**Level II or "Medium" Incident.** Maximum most probable discharge.

**Level III or "Worst Case" Incident.** Worst case discharge.

**Lightering Vessel.** A vessel designated to receive and store oil cargo and/or bunkers from another vessel. The lightering vessel will usually come alongside the vessel to be lightered (the mother vessel) and cargo will be transferred using the mother vessel's pumps or portable lightering pumps.

**Management by Objective (MBO).** Top-down management so that all involved know and understand the objectives of the operations.

**Marine Spill Response Corporation (MSRC).** An independent, non-profit corporation dedicated to providing a best-effort response to help clean up large spills of persistent oil in U.S. offshore and tidal waters, including bays, harbors, and mouths of rivers. It will respond to spills further up river when oil has been spilled from ocean going tankers heading up river. MSRC succeeds PIRO.

**Marine Transportation-Related Facility (MTR Facility).** An onshore facility, including piping and any structure used to transfer oil to or from a vessel, subject to regulation under 33 CFR Part 154 and any deepwater port subject to regulation under 33 CFR Part 150.

**Maximum Most Probable Discharge.** A discharge of the lesser of 1200 barrels or 10 percent of the volume of a worst case discharge (USCG). The lesser of 36,000 gallons or 10 percent of the volume of the worst case discharge.

**Message Center.** The message center is part of the communications center and is co-located or placed adjacent to it. It receives, records, and routes information about resources reporting to the incident, resource status, and administration and tactical traffic.

**Mobilization Center.** An off incident location at which emergency service personnel and equipment are temporarily located pending assignment, release, or reassignment.

**MSDS.** Material Safety Data Sheet.

**MSRC.** Marine Spill Response Corporation

**Multiagency Coordination System (MACS).** The combination of facilities, equipment, personnel, procedures, and communications integrated into a common system with responsibility for coordination of assisting agency resources and support to agency emergency operations.

**NCP.** National Contingency Plan.

**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, it means the area extending seaward 12 miles from the line of demarcation (COLREG lines) defined in Sections 80.740 - 80.850 of Title 33 of the CFR.

**NEPA.** National Environmental Policy Act.

**NMFS.** National Marine Fisheries Service.

**NOAA.** National Oceanic and Atmospheric Administration.

**Non-persistent or Group I Oil.** A petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions; (1) at least 50 percent of which by volume, distill at a temperature of 340 degrees centigrade (645 degrees Fahrenheit); and (2) at least 95% or which by volume, distill at a temperature of 370 degrees centigrade (700 degrees Fahrenheit).

**NRC.** National Response Center.

**NRDA.** Natural Resource Damage Assessment.

**NWS.** National Weather Service.

**OPA 90.** Oil Pollution Act of 1990.

**Oil Spill Response Organization.** An exclusive team referring to all internal and external manpower resources involved in response operations and response support activities.

**Oil Spill Response Vessels.** Vessels fitted with dedicated oil spill response equipment to be used exclusively for those purposes.

**Oily Debris.** Includes sorbent pads/boom, protective clothing/gear, soil, sand, rocks, logs, kelp, plastics, mousse, oil/water mixture and animal carcasses.

**Oily Waste.** Oil-contaminated waste resulting from an oil spill or oil spill response operations.

**Operational Period.** The period of time scheduled for execution of the Incident Action Plan, (usually 24 hours).

**Operational Planning Sheet.** Provides guidance on the type and status of equipment resources that will be needed to implement (a) tactical operations plan(s).

**OSHA.** Occupational Safety and Health Administration.

**OSSC.** Oil Spill Service Center, Southhampton, England.

**Out-of-Service Resources.** Resources assigned to an incident but unable to respond for mechanical, rest, or personnel reasons.

**Out-of-Service Tactical Resources.** Not ready for assignment.

**Persistent Oil.** A petroleum-based oil that does not meet the distillation criteria for a non-persistent oil. For the purpose of this plan, persistent oils are further classified based on specific gravity as follows: (1) Group II - specific gravity less than .85; (2) Group III - specific gravity between .85 and less than .95; (3) Group IV - specific gravity .95 to and including 1.9; (4) Group V - specific gravity greater than 1.0.

**PIC.** Person-In-Charge.

**Planning Meetings.** Held to finalize tactical operations plans for next operational period and to commission preparation of Incident Action Plan.

**Post Emergency.** The phase of response operations conducted after the immediate threat of the release has been stabilized, and cleanup operations have begun.

**Q.I.** Qualified Individual.

**Qualified Individual.** The designated person serving as the incident commander and who has full authority to: activate response contractors; liaison with the federal on-scene coordinator; and obligate funds to carry out response activities.

**RCP.** Regional Contingency Plan.

**Reclaimed.** Reclaimed refers to any process that must be utilized to return the product to its pre-spill state and the process for which it was destined.

**Resource Trustees.** Governmental agencies, federal and state responsible for managing and protecting sensitive resources.

**Response Contractor.** Individual, organization, association, or cooperative that provides or intends to provide equipment and/or personnel for oil spill containment, cleanup, and/or removal activities.

**Response Priorities.** Mechanism used to maximize the effective use of manpower and equipment resources based upon their availability during an operational period.

**RRT.** Regional Response Team.

**Safety and Health Plan.** A site-specific plan developed at the time of an incident that addresses:

- safety and health hazard analysis for each operations.
- personal protective equipment to be used.
- training requirements for site workers.
- medical surveillance requirements.
- air monitoring requirements.
- site control measures.
- decontamination procedures.
- emergency response procedures.
- confined space entry procedures.

**SARA.** Superfund Amendments and Reauthorization Act.

**Section.** That organizational level having functional responsibility for primary segment or incident operations such as: operations, environmental, planning, logistics, finance.

**Sheen.** An iridescent appearance on the surface of the water.

**Single Resource.** Individual piece of equipment plus the required number of individuals to properly utilize it.

**Site Characterization.** An evaluation of a cleanup site to determine the appropriate safety and health procedures needed to protect employees from identified hazards.

**SITREP.** Situation Status Report.

**Skimmer.** Mechanically driven device designed to recover oil floating on water.

**Snare Boom.** Oil will adhere to the material of which this boom is made of and thus collect it.

**Sorbent Boom.** The material of which this boom is manufactured will absorb persistent oil and thus collect it.

**Source Control.** Any number of procedures that may be employed to stop, curtail, and/or inhibit the source of a spill.

**Span-of-Control.** The supervisory ratio of from three to seven individuals with five being established as a general rule of thumb.

**Spill.** Unauthorized discharge of oil or hazardous substance which enters the waters of the state.

**Staging Area.** That location where incident personnel and equipment are assigned on a time specific available status.

**Strategic Objectives.** Short, concise statements that define broad scale objectives to be achieved or addressed during an operational period.

**Strike Team.** Set number of resources of the same kind and type that can be assembled for a specific mission.

**Tactical Operations Planning Meetings.** Help to develop the specific tactics that will be used to achieve or address the strategic objectives for the next operational period.

**Tactical Operations Plans.** Specific response strategies designed to achieve strategic objectives consistent with response priorities.

**Task Force.** A combination of resources that can be assembled for a specific mission.

**Technical Specialists.** Personnel with special skills who are activated only when needed.

**Tender.** Any vessel used for transportation of resources to and from the site of a marine oil spill.

**USCG.** United States Coast Guard.

**Unified Command.** A method for agencies who have jurisdictional responsibility, and in some cases those who have functional responsibility at the incident, to contribute to:

- Determining overall objectives for the incident.
- Selection of a strategy to achieve the objectives.

**Unified or Coordinated Command Meeting.** Held to obtain agreement on strategic objectives and response priorities; review tactical strategies; engage in joint planning; integrate response operations; maximize use of resources; and minimize resolve conflicts.

**Unit.** That organization element having functional responsibility for a specific incident planning, logistics, or finance activity.

**Vessels of Opportunity.** Vessels not fitted with any type of oil spill response equipment during normal operation, but with the potential to do so.

**Vessel of Opportunity Skimming System (VOSS).** A system of one or more vessels of opportunity fitted with one or more skimmers and boom to contain and recover oil on water.

**Worst Case Discharge.** Incident at an onshore marine transportation related facility is defined as the largest foreseeable discharge in adverse weather conditions meeting the following criteria (USCG).

Not less than, where applicable, the loss of the entire capacity of all in-line and breakout



storage tank(s) needed for the continuous operation of the pipeline(s) used for the purpose 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 shutdown 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, whichever is greater), 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.

A "worst case" incident at a transportation related facility can be defined as 100 percent of the volume of the largest tank in secondary containment area (EPA).

## REFERENCES

Department of Transportation, U.S. Coast Guard. (33 CFR 154): "Navigation and Navigable Waters." July 1993.

Department of Transportation, U.S. Coast Guard Research and Special Programs Administration, Environmental Protection Agency, Department of the Interior Minerals Management Service: "National Preparedness for Response Exercise Program (PREP) Guidelines." August 1994.

Department of Transportation, U.S. Coast Guard Research and Special Programs Administration, Environmental Protection Agency, Department of the Interior Minerals Management Service: "Training Reference for Oil Spill Response." August 1994.

*Federal Register* (40 CFR 112): "Oil Pollution Prevention; Non-Transportation-Related Onshore Facilities." July 1994.

Hazardous Materials Response and Assessment Division National Oceanic and Atmospheric Administration: "Area Response Plan, Ft. Pierce County, Sensitive Areas and Protection Strategies.

United States Coast Guard Marine Sector: "Area Contingency Plan for Oil and Hazardous Substance Pollution Response."

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**APPENDIX H**  
**WORKSHEETS FOR DETERMINING DISCHARGE VOLUMES**

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**WORST CASE DISCHARGE WORKSHEET****NO.6 FUEL OIL STORAGE TANK(S) AT THE MARTIN FUEL TERMINAL**

Appendix D to 40 CFR 112

Oil Group # =   
(Type number in box)

Operating Area = 

X		
Near Shore/Inland	Rivers	Great Lakes

**I Single Tank Facilities**

- A. If secondary containment is adequate,  
then WCD = 80% tank's capacity  
(Type "X" in box)

(gallons)

- B. If secondary containment is adequate,  
then WCD = tank's capacity  
(Type "X" in box)

(gallons)

**Largest AST Volume**  
**WCD**

(gallons)  
 (gallons)

**II Multiple Tank Facilities**

**If all ASTs lack adequate secondary containment go to A. If not, go to B.**

- A. WCD = Total capacity of all AST's

(gallons)

- B. 1) Calculate total AST capacity without adequate secondary containment.

X =  (gallons)

- 2) Calculate the capacity of the largest AST within adequate secondary containment.

Y = (b) (7)(F), (b) (3) (gallons)

- 3) WCD = X + Y

WCD = (b) (7)(F), (b) (3) (gallons) (b) (7)(F), (b) (3) (barrels)

**WORKSHEET TO PLAN VOLUME OF RESPONSE RESOURCES FOR WORST CASE DISCHARGE  
NO.6 FUEL OIL ABOVEGROUND STORAGE TANK(S) AT THE MARTIN FUEL TERMINAL  
Appendix E to 40 CFR 112**

Part I Background Information

Step (A) Calculate Worst Case Discharge in barrels

(b) (7)(F), (b) (3)

Step (B) Oil Group

Step (C) Operating Area (choose one)

☒Nearshore/Inland  
Great Lakes☐ or Rivers  
and CanalsStep (D) Percentages of Oil  
Percent Lost to

Percent Recovered

Percent

(b) (7)(F), (b) (3)

Step (E1) On-Water Recovery

$$\frac{\text{Step (D2)} \times \text{Step (A)}}{100}$$

(b) (7)(F), (b) (3)

Step (E2) Shoreline Recovery

$$\frac{\text{Step (D3)} \times \text{Step (A)}}{100}$$

Step (F) Emulsification Factor

Step (G) On-Water Oil Recovery Resource Mobilization Factor

(b) (7)(F), (b) (3)

Part II On-Water Oil Recovery Capacity (barrels/day)

Tier 1

Tier 2

(b) (7)(F), (b) (3)

Part III Shoreline Cleanup Volume (barrels)Part IV On-Water Response Capacity By Operating Area

(Amount needed to be contracted for in barrels/day)

Tier 1

Tier 2

(b) (7)(F), (b) (3)

Part V On-Water Amount Needed to be Identified, but not Contracted for in Advance (Barrels/day)

Tier 1

Tier 2

(b) (7)(F), (b) (3)

**WORKSHEET TO PLAN VOLUME OF RESPONSE RESOURCES FOR WORST CASE DISCHARGE  
NO.6 FUEL OIL PIPELINE FROM UNLOADING DOCK TO INLET OF 30" PIPELINE AT PORT OF PALM BEACH  
Appendix E to 40 CFR 112**

Part I Background Information

Step (A) Calculate Worst Case Discharge in barrels

(b) (7)(F), (b) (3)

Step (B) Oil Group

Step (C) Operating Area (choose one)

☒
Nearshore/Inland  
Great Lakes
☐
or Rivers  
and Canals

Step (D) Percentages of Oil

Percent Lost to  
Natural DissipationPercent Recovered  
Floating OilPercent  
Oil Onshore

(b) (7)(F), (b) (3)

Step (E1) On-Water Recovery

$$\frac{\text{Step (D2)} \times \text{Step (A)}}{100}$$

(b) (7)(F), (b) (3)

Step (E2) Shoreline Recovery

$$\frac{\text{Step (D3)} \times \text{Step (A)}}{100}$$

Step (F) Emulsification Factor

Step (G) On-Water Oil Recovery Resource Mobilization Factor

(b) (7)(F), (b) (3)

Part II On-Water Oil Recovery Capacity (barrels/day)

Tier 1

Tier 2

(b) (7)(F), (b) (3)

Part III Shoreline Cleanup Volume (barrels)Part IV On-Water Response Capacity By Operating Area

(Amount needed to be contracted for in barrels/day)

Tier 1

Tier 2

(b) (7)(F), (b) (3)

Part V On-Water Amount Needed to be Identified, but not Contracted for in Advance (Barrels/day)

Tier 1

Tier 2

(b) (7)(F), (b) (3)



**WORKSHEET TO PLAN VOLUME OF RESPONSE RESOURCES FOR WORST CASE DISCHARGE  
NO. 6 FUEL OIL 18" PIPELINE FROM MARTIN FUEL TERMINAL TO MARTIN PLANT  
Appendix E to 40 CFR 112**

Part I Background Information

Step (A) Calculate Worst Case Discharge in barrels

(b) (7)(F), (b) (3)

Step (B) Oil Group

Step (C) Operating Area (choose one)

☒

Nearshore/Inland  
Great Lakes

☐

or Rivers  
and Canals

Step (D) Percentages of Oil  
Percent Lost to

Percent Recovered

Percent

(b) (7)(F), (b) (3)

Step (E1) On-Water Recovery

$$\frac{\text{Step (D2)} \times \text{Step (A)}}{100}$$

(b) (7)(F), (b) (3)

Step (E2) Shoreline Recovery

$$\frac{\text{Step (D3)} \times \text{Step (A)}}{100}$$

Step (F) Emulsification Factor

Step (G) On-Water Oil Recovery Resource Mobilization Factor

(b) (7)(F), (b) (3)

Part II On-Water Oil Recovery Capacity (barrels/day)

(b) (7)(F), (b) (3)

Part III Shoreline Cleanup Volume (barrels)

Part IV On-Water Response Capacity By Operating Area  
(Amount needed to be contracted for in barrels/day)

Tier 1

Tier 2

(b) (7)(F), (b) (3)

Part V On-Water Amount Needed to be Identified, but not Contracted for in Advance (Barrels/day)

Tier 1

Tier 2

(b) (7)(F), (b) (3)

**WORKSHEET TO PLAN VOLUME OF RESPONSE RESOURCES FOR WORST CASE DISCHARGE**  
**NO. 6 FUEL OIL 30" PIPELINE FROM PORT OF PALM BEACH TO MARTIN TERMINAL**  
**Appendix E to 40 CFR 112**

Part I Background Information

Step (A) Calculate Worst Case Discharge in barrels

Step (B) Oil Group

Step (C) Operating Area (choose one)

☒
Nearshore/Inland  
Great Lakes
☐
or Rivers  
and Canals

Step (D) Percentages of Oil

Percent Lost to  
Natural DissipationPercent Recovered  
Floating OilPercent  
Oil Onshore

(b) (7)(F), (b) (3)

Step (E1) On-Water Recovery

$$\frac{\text{Step (D2)} \times \text{Step (A)}}{100}$$

Step (E2) Shoreline Recovery

$$\frac{\text{Step (D3)} \times \text{Step (A)}}{100}$$

Step (F) Emulsification Factor

Step (G) On-Water Oil Recovery Resource Mobilization Factor

Tier 1

Tier 2

(b) (7)(F), (b) (3)

Part II On-Water Oil Recovery Capacity (barrels/day)

Tier 1

Tier 2

(b) (7)(F), (b) (3)

Part III Shoreline Cleanup Volume (barrels)Part IV On-Water Response Capacity By Operating Area

(Amount needed to be contracted for in barrels/day)

Tier 1

Tier 2

(b) (7)(F), (b) (3)

Part V On-Water Amount Needed to be Identified, but not Contracted for in Advance (Barrels/day)

Tier 1

Tier 2

(b) (7)(F), (b) (3)

**Pipeline from Unloading Dock to Inlet of 30" Pipeline at Port of Palm Beach  
Worst Case Discharge Calculations**

(b) (7)(F), (b) (3)



**WORST CASE DISCHARGE CALCULATIONS**  
**MARTIN TERMINAL BREAKOUT TANK(S)**  
**49 CFR 194.105**

**Per 49 CFR 194.105(b)(4):**

Operators may claim prevention credits for breakout tank secondary containment and other specific spill prevention measures as follows:

<b>Prevention measure</b>	<b>Standard</b>	<b>Credit (percent)</b>
Secondary containment > 100%	NFPA 30	50
Built/repaired to API standards	API STD 620/650/653	10
Overfill protection standards	API RP 2350	5
Testing/cathodic protection	API STD 650/651/653	5
Tertiary containment/drainage/treatment	NFPA 30	5
Maximum allowable credit		75


[58 FR 253, Jan. 5, 1993, as amended by Amdt. 194–3, 63 FR 37505, July 13, 1998; Amdt. 194–4, 70 FR 8747, Feb. 23, 2005; Amdt. 194–5, 70 FR 35042, June 16, 2005]

**WORST CASE DISCHARGE CALCULATIONS**

(b) (7)(F), (b) (3)

**APPENDIX I**  
**SPILL REPORT FORM**

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SPILL RESPONSE NOTIFICATION FORM			
<b>MARTIN TERMINAL</b>			
<b>REPORTING PARTY INFORMATION</b>			
<b>INITIAL NOTIFICATION TO NRC MUST NOT BE DELAYED</b>			
<b>PENDING COLLECTION OF ALL INFORMATION</b>			
REPORTER'S LAST NAME: _____ FIRST: _____ M.I.: _____			
PHONE NUMBERS: DAY: _____ EVENING: _____ MOBILE: _____			
COMPANY: <u>Florida Power and Light Company</u>			
ORGANIZATION TYPE: <u>Electric Company</u>			
YOUR POSITION: _____			
ADDRESS: <u>2400 PORT WEST BLVD.</u>			
CITY: <u>WEST PALM BEACH</u>		STATE: <u>FL</u>	ZIP: <u>33407</u>
WERE MATERIALS DISCHARGED? (Y/N): _____		CONFIDENTIAL (Y/N) _____	
MEETING FEDERAL OBLIGATIONS TO REPORT? (Y/N): _____		DATE CALLED: _____	
CALLING FOR RESPONSIBLE PARTY? (Y/N): _____		TIME CALLED: _____	
<b>INCIDENT DESCRIPTION</b>			
SOURCE AND/OR CAUSE OF INCIDENT: _____			
DATE: _____		TIME OF INCIDENT: _____ AM/PM	
INCIDENT ADDRESS/LOCATION: _____			
NEAREST CITY: <u>WEST PALM BEACH</u>		STATE: <u>FL</u>	COUNTY: <u>MARTIN</u> ZIP: <u>33407</u>
DISTANCE FROM CITY: _____		UNITS: <u>MILES</u>	DIRECTION FROM CITY: _____
SECTION: _____		TOWNSHIP: _____	RANGE: _____
CONTAINER TYPE: _____		TANK CAPACITY: _____	UNITS: _____
FACILITY CAPACITY: <u>(b) (7)(F),</u>		UNITS: <u>GALLONS</u>	
FACILITY LATITUDE: <u>(b) (7)(F), (b) (3)</u>			
FACILITY LONGITUDE: _____			

## SPILL RESPONSE NOTIFICATION FORM



## SPILL RESPONSE NOTIFICATION FORM

Material Released	Quantity Released	Unit of Measure	Material Released in Water	Unit of Quantity

## RESPONSE ACTION

Actions Taken to Correct, Control or Mitigate Incident

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## IMPACT

Number of Injuries \_\_\_\_\_ Number of Fatalities \_\_\_\_\_

Were there Evacuations? \_\_\_\_\_ (Y/N) Number of Evacuations \_\_\_\_\_

Was there any Damage? \_\_\_\_\_ (Y/N) Damage Estimate in Dollars (approx.) \_\_\_\_\_

Medium Affected \_\_\_\_\_


Description \_\_\_\_\_

Information about Medium \_\_\_\_\_ More  
information about the incident not recorded elsewhere in the report: \_\_\_\_\_ Any

## ATMOSPHERIC AND WATER CONDITIONS

ATMOSPHERIC	WATER
Wind Speed: _____ mph	State of Tide: _____
Wind Direction From: _____	Current Speed: _____ knots
Air Temperature: _____ °F	Current Direction From: _____
Visibility: _____ miles	Wave Height: _____ feet
Precipitation: _____	Water Temperature: _____ °F



SPILL RESPONSE NOTIFICATION FORM			
			
<b>MARTIN TERMINAL</b>			
<b>CALLER NOTIFICATIONS</b>			
	Yes/No	Who	Time/Date
NATIONAL RESPONSE CENTER (NRC) (800) 424-8802			
US COAST GUARD SECTOR MIAMI			
FDEP			
STATE WARNING POINT			
PRIMARY OSRO (SWS ENVIRONMENTAL)			
CRT (CORPORATE RESPONSE TEAM)			
FPDC (FLEET PERFORMANCE & DIAGNOSTICS CENTER)			
MARTIN COUNTY			
AREA EXTERNAL AFFAIRS REPRESENTATIVE			
CORPORATE COMMUNICATIONS			
OTHERS			
<div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div> <hr style="width: 250px;"/> <b>On-Scene Commander</b> </div> <div> <hr style="width: 200px;"/> <b>Date</b> </div> </div>			

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SITE EVACUATION PLAN



FPL

FLORIDA POWER & LIGHT COMPANY

MARTIN FUEL TERMINAL

FIGURE 11-11

RBEC COMPRESSOR SITE  
SITE EVACUATION PLAN



FLORIDA POWER & LIGHT COMPANY  
MARTIN FUEL TERMINAL  
RBEC COMPRESSOR STATION  
FIGURE II-11A

SITE DRAINAGE PLAN



FLORIDA POWER & LIGHT COMPANY

MARTIN FUEL TERMINAL

FIGURE 11-12

RBEC COMPRESSOR SITE DRAINAGE PLAN



FLORIDA POWER & LIGHT COMPANY  
MARTIN FUEL TERMINAL  
RBEC COMPRESSOR STATION  
FIGURE II-12A

OIL SPILL DRAINAGE PATHS



EPFL

FLORIDA POWER & LIGHT COMPANY

MARTIN FUEL TERMINAL

FIGURE II-13

RBEC COMPRESSOR SITE  
OIL SPILL DRAINAGE PATHS



**FPL**

FLORIDA POWER & LIGHT COMPANY

MARTIN FUEL TERMINAL

RBEC COMPRESSOR STATION

FIGURE 11-13A



# **Martin Terminal**

## Martin Terminal Boom Strategies

(b) (7)(F), (b) (3)



# Martin Terminal Booming Strategy Map Site Overview

(b) (7)(F), (b) (3)



# Martin Terminal Booming Strategy Map View 1

(b) (7)(F), (b) (3)



# Martin Terminal Booming Strategy Map View 2

(b) (7)(F), (b) (3)



# Martin Terminal Booming Strategy Map View 3

(b) (7)(F), (b) (3)





# FPL Martin Terminal

## Comprehensive Response Data

(b) (7)(F), (b) (3)







LOCATION OF EQUIPMENT TANKS AND FUEL OIL STORAGE TANKS  
AND TANK TRUCK UNLOADING AREA



FLORIDA POWER & LIGHT COMPANY

MARTIN FUEL TERMINAL  
FIGURE II-6

(3) (b) (7)(F), (b) (7)(G)

(3) (g) (F)(7) (g)




FLORIDA POWER & LIGHT COMPANY  
MARTIN FUEL TERMINAL  
RBEC COMPRESSOR STATION  
FIGURE 11-6A

RBEC COMPRESSOR SITE  
LOCATION OF EQUIPMENT TANK AND VESSEL FOR COMPRESSOR STATION

(b) (3) (b) (5) (A) (b) (7) (D)

LOCATION OF OIL FILLED EQUIPMENT		 <b>FPL</b>	FLORIDA POWER & LIGHT COMPANY
			MARTIN FUEL TERMINAL FIGURE 11-7

(b) (3) (b) (5) (A) (b) (7) (C)

RBEC COMPRESSOR SITE LOCATION OF OIL FILLED EQUIPMENT		 <b>FPL</b>	FLORIDA POWER & LIGHT COMPANY
			MARTIN FUEL TERMINAL RBEC COMPRESSOR STATION FIGURE 11-7A

# LOCATION OF OIL SPILL RESPONSE AND COMMUNICATION EQUIPMENT



FLORIDA POWER & LIGHT COMPANY

MARTIN FUEL TERMINAL

FIGURE 11-8

(b) (7)(F), (b) (3)

# FIRE PROTECTION PLAN



FLORIDA POWER & LIGHT COMPANY

MARTIN FUEL TERMINAL

FIGURE 11-9

(b) (7)(F), (b) (3)

RBEC COMPRESSOR SITE  
FIRE PROTECTION PLAN



FPL

FLORIDA POWER & LIGHT COMPANY

MARTIN FUEL TERMINAL

RBEC COMPRESSOR STATION

FIGURE 11-9A

(3) (g) (F) (7) (g)



MARTIN TERMINAL AND RBEC COMPRESSOR STATION




FPL

FLORIDA POWER & LIGHT COMPANY

MARTIN FUEL TERMINAL  
RBEC COMPRESSOR STATION  
FIGURE III-1

(b) (6) (b) (7)(C) (b) (7)(D)

<p>SIGNIFICANT MATERIALS LOCATION MAP</p>	 <p>FPL</p>	<p>FLORIDA POWER &amp; LIGHT COMPANY MARTIN FUEL TERMINAL FIGURE XI-1</p>
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RBEC COMPRESSOR STATION  
SIGNIFICANT MATERIALS LOCATION MAP



**FPL**

FLORIDA POWER & LIGHT COMPANY

MARTIN FUEL TERMINAL

RBEC COMPRESSOR STATION

FIGURE X1-1A

(3) (g) (F) (L) (g)