



EMERGENCY MANAGEMENT GUIDE (EMG)



BARTOW STATION AND BARTOW/ANCLOTE PIPELINE

LOCATED AT:

**1601 WEEDON ISLAND DRIVE
SAINT PETERSBURG, PINELLAS COUNTY, FLORIDA 33702**

AUGUST 2013

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I.1 PURPOSE AND SCOPE

The purpose of this guide is to provide policies and procedures to guide Duke Energy Florida (DEF) personnel through response to a variety of emergency situations. It is intended to protect the health and well-being of persons both on and off the station property, and to protect the environment and company property from the effects of unusual events. This guide provides direction to station personnel for reacting to these events.

The Station Environmental Specialist should be contacted for further information or for explanation of this guide.

The Facility Emergency Management guide consists of three sections and may be in two volumes.

Section II, the Emergency Action Guide (EAG) is a core plan that provides information that is time critical in the earliest stages of a response and is a framework to guide personnel through key steps necessary to mount effective incident mitigation. The following are defined as emergencies and are addressed in this guide:

- Fire
- Bomb threat
- Medical emergency
- Evacuation
- Confined space emergency
- Oil spills
- Gas or oil pipeline incident
- Chemical release
- Oil tanks alarm or leak
- Crime(s) in progress

This section may be under a separate cover.

Sections I and III, the Emergency Management Guide (EMG), contain facility information and subsections that provide detailed information to guide personnel through emergency and post emergency activities as they pertain to OPA-90 regulations and oil spills. These subsections also provide guidance pertaining to post accident investigation, incident history, written reports, training, drills and exercises, plan review, spill prevention, and regulatory compliance.

Duke Energy Florida has adopted, as an incident mitigation guide, the National Incident Management System (NIMS) ICS that is a standardized response management system. It is an "all hazard – all risk" approach to managing crisis response operations as well as non-crisis events. The ICS is consistent with the National Contingency Plan (NCP).

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Duke Energy has reviewed the NCP and the applicable Area Contingency Plan (ACP) and has determined this emergency guide to be consistent with them. Conformance with the NCP and ACP will be reviewed on an annual basis.

The EMG assigns the Station Manager, or his/her designees, as Emergency Action Coordinators and Qualified Individuals (EAC/QI) who have the responsibility to manage response actions for an incident. For relatively small oil spills, the EAC/QI is expected to ensure appropriate internal and external notifications are made, eliminate the spill source, control and contain the released and initiate clean-up actions. However, for incidents beyond onsite capabilities (*i.e.*, equipment and training) the EAC/QI will manage the aforementioned activities and will initiate support of both internal and external resources from the EHSS department, sections of the DEF Spill Management Team (SMT)/Incident Management Team (IMT), OSRO, and other contracted personnel if additional spill management support is deemed necessary to stabilize and contain the incident and perform other response actions.

Personnel acting in this role have received Incident Management Team and Incident Command System (ICS) training which incorporates the *National Preparedness for Response Exercise Program* (PREP) guidelines. The Incident Management Team is attached (Figure 1-6).

Site personnel assigned first responder duties will respond to releases or potential releases of oil and hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures. Such personnel will receive First Responder Operations Level training in-house using DEF training courses, Spill Prevention, Control and Countermeasure (SPCC) training, and periodic briefings and refresher courses commensurate with their assigned station duties.

I.2 APPLICABLE FEDERAL AND STATE REGULATIONS/GUIDANCE

This plan addresses the requirements of the following Federal and State regulations:

- US Environmental Protection Agency (EPA)
40 CFR 112, Facility Response Plans (OPA-90);
- US Coast Guard (USCG)
33 CFR 154.1010, Response Plans for Oil Facilities;
- US Department of Transportation (DOT)
49 CFR 194, Response Plans for Onshore Oil Pipelines (OPA-90);
- Florida Department of Environmental Regulation (FDEP)
376 Florida Administrative Code, Pollution Discharge and Prevention and Control Act.
- *The National Response Team's Integrated Contingency Plan Guidance (One Plan)*
Endorsing agencies are: USEPA, USCG, MMS, RSPA, and OSHA.

I.3 PLAN REVIEW AND AMENDMENT PROCEDURES

A Record of Changes is provided in Attachment 1, Table 1-1. The following review and update schedule applies to this guide:

Oil Spill Recovery (OPA-90) (33 CFR 154.1065, 40 CFR 112.20, 49 CFR 194.121)**Reviewed by the Facility:**

- **Immediate:** Changes in potential discharge volumes, products stored, ownership, response organization, procedures, QI, the National Contingency Plan (NCP), Area Contingency Plan (ACP), Regional Contingency Plan (RCP) and new construction shall be cause for immediate amendment of this guide.

Drills or actions during any spill incident shall be critiqued within one week of the incident's close. Any deficiencies will be corrected and necessary changes will be incorporated into the guide.

- **Annual:** This guide will be reviewed at least annually. (Within 365 days of the previous review.) At that time all changes to the economically or environmentally sensitive areas, identified by the NCP, ACP or RCP within the last six months, will be incorporated.

Submission: Immediate Changes per the section above will be submitted to the appropriate agency as follows:

- USEPA – 60 Days,
- USCG – 30 days,
- USDOT only requires a review every 5 years. If any changes are made two copies of the entire plan will be submitted within 30 days of the change.

If no significant changes are generated by the annual or five year review, a letter stating so will be forwarded to the appropriate agency. Copies of these letters will be kept in the guide. Reviews and changes to the guide shall be noted in the record of changes.

Other Plan Sections Reviewed by the Facility:

All other sections of this guide not specifically addressed above shall be reviewed at least annually.

Spill Prevention, Control, and Countermeasure (SPCC) Plans (40 CFR 112):

A stand-alone SPCC Plan serves as a companion document to this EMG. Portions of this plan that overlap with the SPCC Plan (tank lists, drawings, inspection forms, etc.) will be amended in accordance with 40 CFR 112 as described in the SPCC Plan.

I.4 PLAN DISTRIBUTION

A Plan Distribution List is provided in Attachment 1, Table 1-2.

I.5 FACILITY INFORMATION

The P. L. Bartow (Bartow) complex consists of the Bartow power station, its associated substation, storage tank systems, a marine transfer facility, the Bartow Gas Turbines and their associated substation and storage tank system, and the Bartow/Anclothe pipeline receiving tanks and pipeline pump station.

A re-powering of the Bartow Station was completed in 2009 including the addition of four combustion turbines (CTs) and four heat recovery steam generators (HRSGs). The HRSG use the exhaust heat from the CTs to produce steam, which turn a steam turbine. Two 3.5 million gallon fuel oil tanks, various runs of above ground- and underground oil piping, transformers, turbine lube oil tanks and other miscellaneous oil containing equipment were added as part of the re-powering project. The facility is regulated by both EPA and the USGC, and is thus categorized as a "Complex" facility.

The Bartow complex is located on reclaimed land with Old Tampa Bay to the north and east and the Weedon Island County Preserve on the west and south. The waters surrounding the facility are a very popular recreational and fishing area. Public bathing beach and marinas are located less than one mile north of the site. Figure 1-2 provides overall Bartow facility information, and Figure 1-4 is a site area. Figure 1-5 is a site location map showing the surrounding vicinity.

The Bartow terminals store ASTM Grade No. 2 fuel oil which is an OPA-90 Group I oil. The Bartow facility also uses oil associated with electrical equipment (*e.g.*, transformer oil, turbine lubricating oil, *etc.*) and vehicular fuel which is stored in aboveground storage tanks. All No. 2 fuel oil is received from ships and barges and is stored prior to transfer for use at the Bartow power station. A 33-mile x 14-inch pipeline originating at the Bartow complex historically supplied the Anclothe station with No. 6 fuel oil, as shown in Figure 1-3. . The pipeline is currently inactive and has been "pigged" clean.

Tank vessels are unloaded through two 8-inch unloading arms at the north terminal. No. 2 oil is received in 10,000 barrel lots. The facility can unload two 150,000 barrel tankers simultaneously; however, it is the company's policy to allow only one vessel to transfer at a time. The size of vessels allowed to enter the Bartow facility is governed by the Tampa Bay Pilots Association. That organization has authorized vessels of up to 675 feet LOA.



Vessel Offloading to Bartow

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No. 2 fuel oil is only used at the facility as an emergency fuel. The Combustion turbines and peakers utilize natural gas as a primary fuel with No. 2 fuel oil as a back-up. The units are tested annually with No. 2 fuel oil to ensure proper operation of the systems if they are required.

Site diagrams and a summary of facility information is provided in Attachment 2. For a full oil inventory, see the list of tanks contained in the Maps/Site Diagrams section contained in Section II or Section III, *Oil Spill Risk Assessment*.

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Date of Change	Description of Change/Insert	Person Making Change
11/13/02	EAG II – entire new section	Steve Ryan
11/27/03	EMG III – Drills	Steve Ryan
4/03	EAG II – List of contractors, and equipment	Steve Ryan
6/23/03	EMG I – Coast Guard Cross Reference	Steve Ryan
6/26/03	EMG I – Purpose and Scope	Steve Ryan
6/26/03	EMG I – Table of Contents	Steve Ryan
7/1/03	EMG III – Oil Spill Recovery Action Guidelines – Recovery Action	Steve Ryan
7/2/03	EMG III – Training, Drills, Equipment Tests	Steve Ryan
7/10/03	EMG III – Oil Spill Recovery Action Guidelines – Recovery Action	Steve Ryan
9/22/03	EAG II – Tab 15 – Site Maps & Diagrams – Complete update	Steve Ryan
9/30/03	EAG II – Tab 15 – Site Maps & Diagrams – Diagrams 1A & 1B & Table 1	Steve Ryan
10/7/03	(EAG III) – Marine Transfer Facility Operations	Luis Gonzalez
10/9/03	EAG II – Tab 12 - Oil Spill Actions Guidelines – Complete Update	Steve Ryan
10/14/03	EMG III – Oils Spill Risk Assessment – Complete Update	Steve Ryan
10/16/03	EAG II – Tab 2 – Oil Spill – Pages 10 & 11	Steve Ryan
10/16/03	EMG III – Training, Drill, Equipment Tests – Complete Update	Steve Ryan
10/29/03	EMG I – Table of Contents – Table of Contents & Record of Changes	Steve Ryan
2/10/04	EAG – Tab 2 – Oil Spills – pg 12	Steve Ryan
4/22/04	EMG – Sec. III – Oil Spill Recovery Action Guidelines – Recovery Equipment	Steve Ryan
6/30/04	ANNUAL REVIEW – Updates throughout EMG I, EAG II, & EMG III	Steve Ryan
11/5/04	ANNUAL REVIEW – Updates throughout EMG I, EAG II, & EMG III	Steve Ryan
7/18/05	Updates to multiple sections – EMG I, EAG II, & EMG III	Steve Ryan
9/1/05	Updates to Section I – Table of Contents & Section III – Oil Spill Recovery Equip.	Steve Ryan
9/28/05	Updates to Section I & III – Table of Contents, Recovery Equip., Haz. ID	Steve Ryan
11/9/05	Updates to Section I & II – Table of Contents, Sec. II – Tabs 2, 9, 12, 13	Steve Ryan
10/14/08	Updates to Section I	Douglas Dean
12/1/08	Updates to multiple EMG sections to reflect formatting changes	Douglas Dean
12/1/08	Updates to multiple EMG sections to changes in personnel and fuel oil facilities	Douglas Dean
12/6/08	Update to Section I: Section II, Tabs 2, 3, 9, 10, 12: Section III, Recovery equipment, Designated PIC list	Terese Sanchez

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2/19/10	Update to Section I, Tab Attach 2: Section II, Tab 13	Terese Sanchez
8/29/13	Updates to all Sections for revised fuel storage and company name change.	Terese Dodge

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TABLE 1-2. DISTRIBUTION LIST

FACILITY EMERGENCY MANAGEMENT GUIDE (Sections I and III)	No. of Copies
BARTOW STATION Environmental Specialist	1
ENVIRONMENTAL HEALTH & SAFETY SERVICES SECTION (EHSS) (electronic copy only)	1
FACILITY EMERGENCY ACTION GUIDE (Section II)	
BARTOW STATION/PIPELINE/PEAKERS:	
<u>Groups:</u> Control Room Marine Transfer Facility Pipeline Operations Gas Turbines (Peakers)	1 1 1 1
<u>Individuals:</u> Terminals and Pipeline Supervisor Environmental Specialist	1 1
ENVIRONMENTAL SERVICES SECTION (ESS) (electronic copy only)	1
B/A PIPELINE AERIAL PHOTOGRAPHS OF WATER CROSSINGS	
Environmental Specialist	1
Control Room/Shift Supervisor	1
FACILITY EMERGENCY MANAGEMENT GUIDE (Sections I, II, & III)	
U. S. ENVIRONMENTAL PROTECTION AGENCY, REGION IV Mr. Theodore Walden, OSC Sam Nunn Atlanta Federal Center 61 Forsyth Street SW Atlanta, GA 30303 Tracking # FRP04FL250m	1
PIPELINE RESPONSE PLANS OFFICER Research and Special Programs Administration Department of Transportation 400 Seventh St., S.W. Washington, D.C. 20590-0001 RSPA #398	1
COMMANDING OFFICER USCG Marine Safety Office 155 Columbia Drive Tampa, FL 33606 Control #21	1
MARINE TRANSFER FACILITY OPERATIONS MANUAL (as part of EMG)	
U.S. COAST GUARD – TAMPA	1
BARTOW STATION: Marine Transfer Facility	2
Terminals & Pipeline Supervisor	1
Environmental Specialist	1
DEF SPILL ADVISOR & EMERGENCY ACTION GUIDE CONSULTANT, EHSS	1

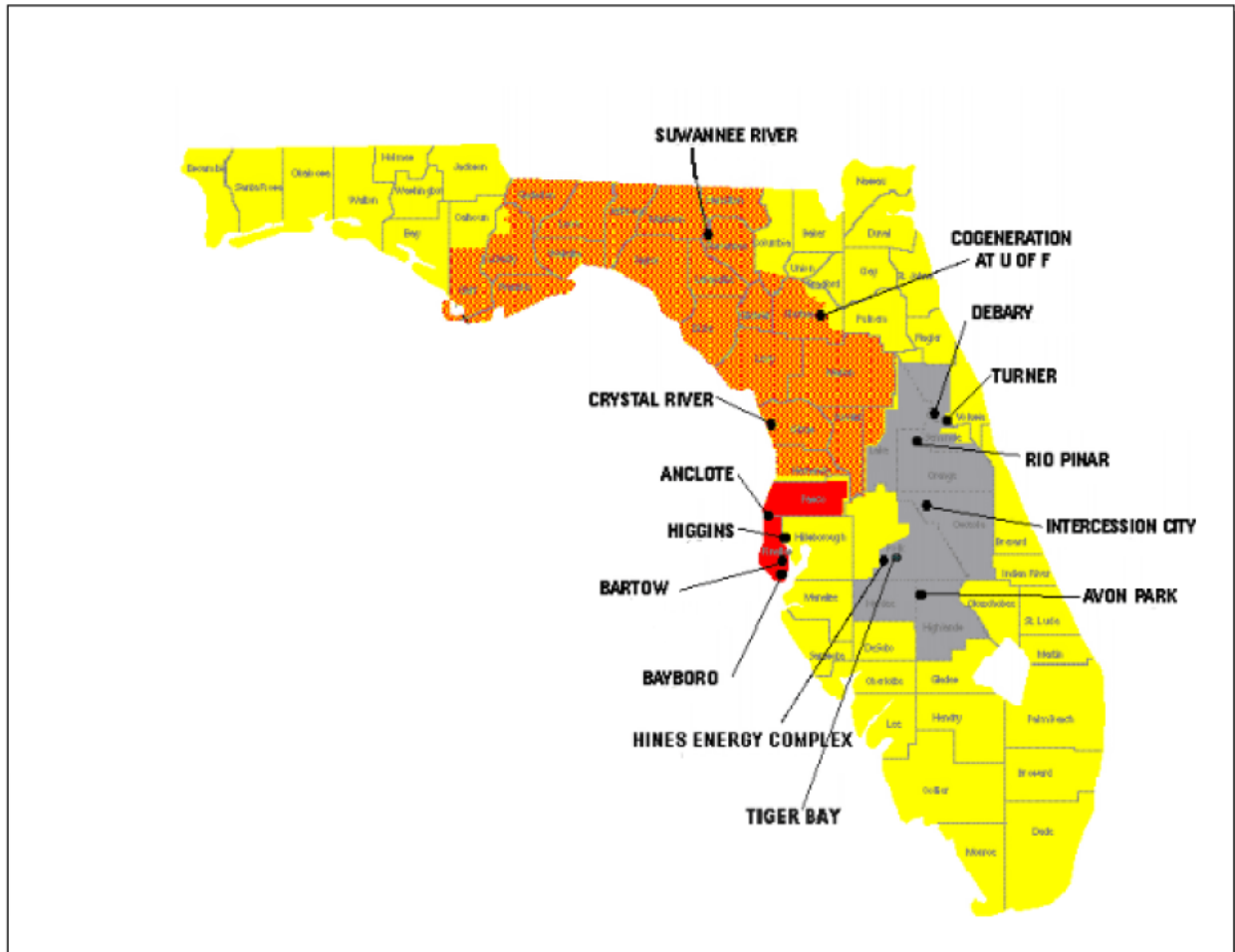
ATTACHMENT 2. FIGURES

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FIGURE 1-1. DUKE ENERGY SITE LOCATIONS



**DUKE ENERGY FLORIDA
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FIGURE 1-2. FACILITY INFORMATION (SUMMARY)


Location: 1601 Weedon Island Drive St. Petersburg, FL 33702 Pinellas County	Bartow Station Telephone: (727) 827-6100 Facsimile: (727) 827-6102 Microwave: 220-6100	Driving from St. Petersburg: Take I-275 north to Gandy Blvd. East (right) on Gandy to San Martin Blvd. (First right after Derby Lanes dog rack). Follow the sign for Weedon Island park and Duke Energy Florida on the left.
Owner: Duke Energy Florida, Inc. P.O. Box 14042 St. Petersburg, Pinellas County, FL. 33733-4042 (727) 820-5151	<div style="background-color: black; color: red; text-align: center; padding: 2px;">(b) (7)(F)</div> Wellhead Protection Area: N/A Oil Storage Start-up: 1955 Substantial Expansions: 2008	Qualified Individual & Emergency Response Coordinator: See the Notification Phone List in the Emergency Action Guide (Tab 9 or Tab 2).
	Current Operations: Electricity Generation NIACS - 2211	Person responsible for this guide's maintenance: Station Environmental Specialist. See Notification Phone List for contact information.

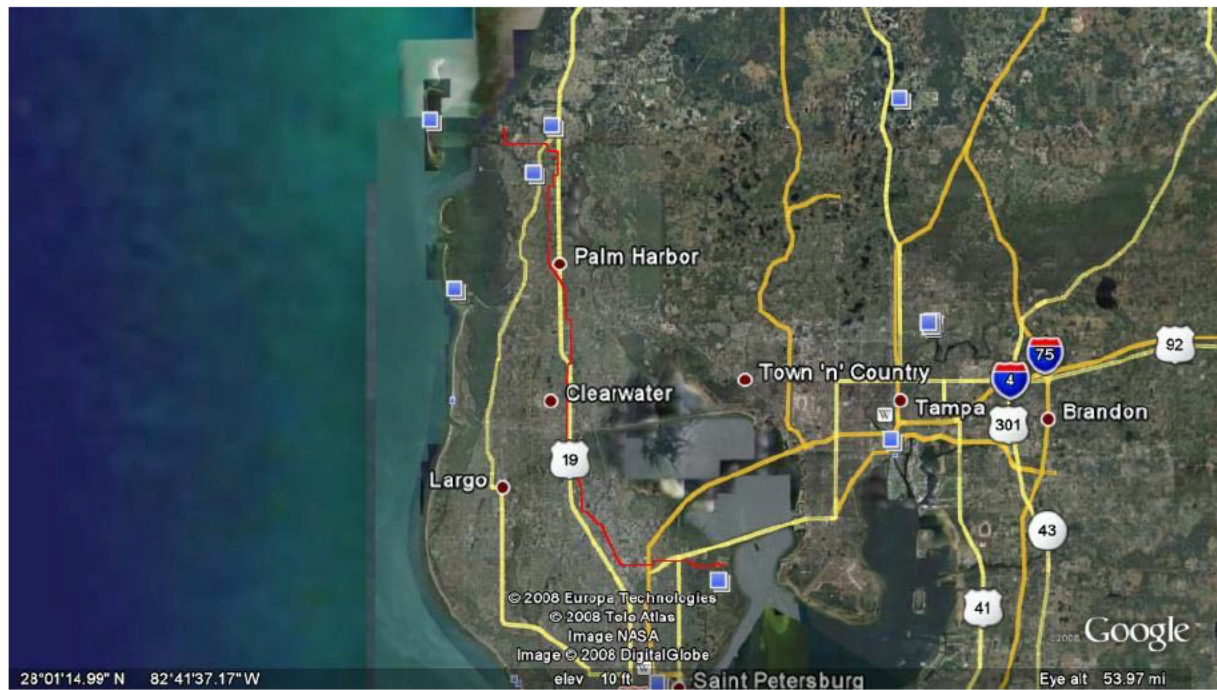
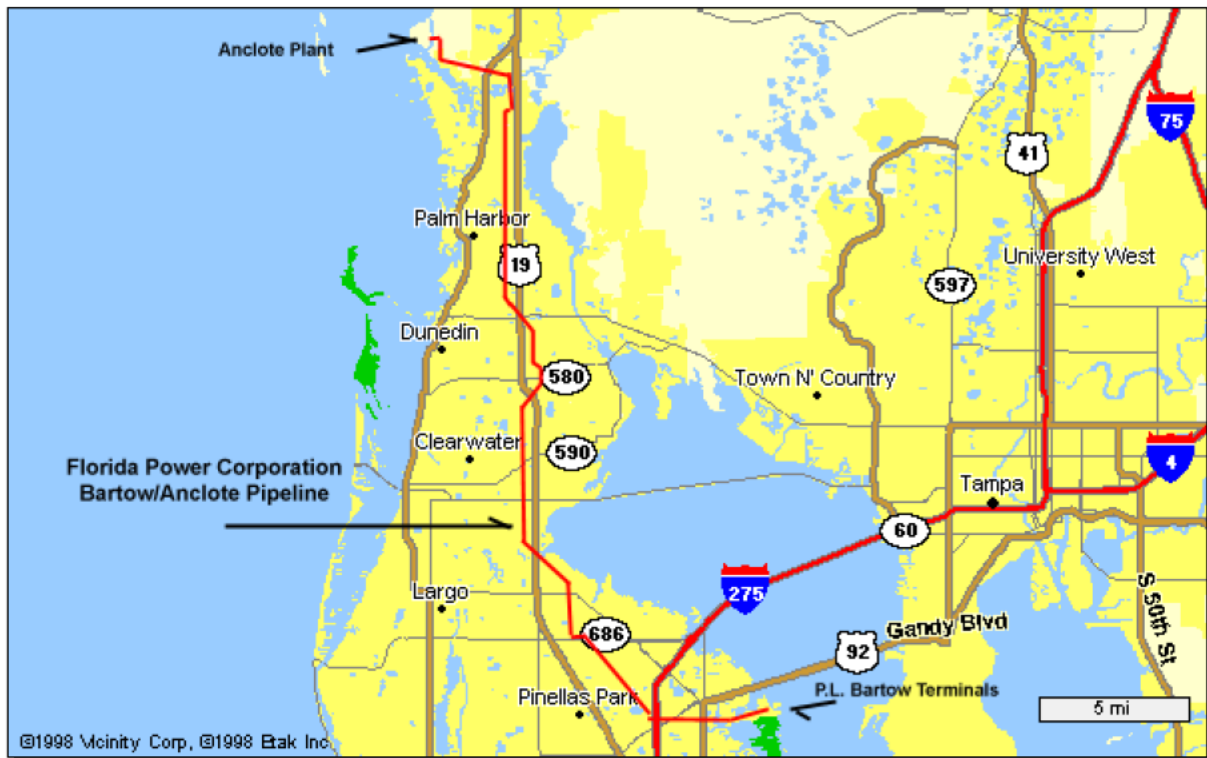
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FIGURE 1-3. BARTOW/ANCLOTE PIPELINE LOCATION


FIGURE 1-4. BARTOW STATION SITE AERIAL

FIGURE 1-5. BARTOW STATION SITE VICINITY MAP



FIGURE 1-6. INCIDENT MANAGEMENT TEAM (ATTACHED)

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II.0 EMERGENCY ACTION GUIDE

Definitions:

Hazardous Materials Emergency—An occurrence that results, or is likely to result, in an uncontrolled release of any oil, hazardous substance, hazardous waste or radiation.

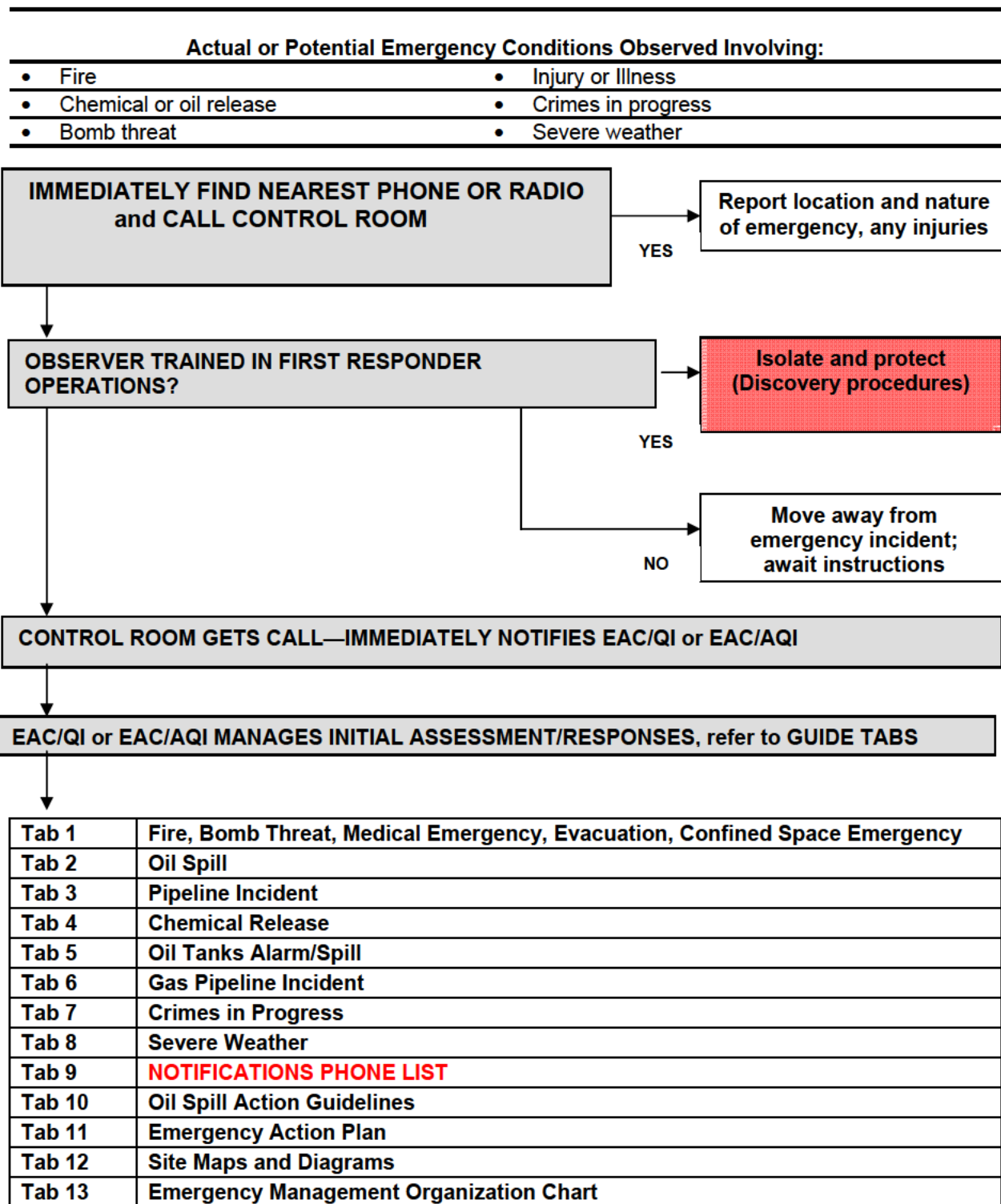
Emergency Response—A response effort by employees outside the immediate release area or by other designated responders (*i.e.*, mutual aid groups, local fire departments, etc.) to an occurrence which results, or is likely to result, in an uncontrolled release of a hazardous substance. Responses to incidental releases of hazardous substances, where the substance can be absorbed, neutralized, or otherwise controlled at the time of the release by employees in the immediate release area, or by maintenance personnel, are not considered to be emergency responses within the scope of the OSHA HAZWOPER standard. (29 CFR 1910.120).

This Emergency Action Guide provides time-sensitive, critical guidance to DEF responders to an oil or hazardous materials emergency. It is to be used in conjunction with response training to ensure a timely, effective response. This Emergency Action Guide is designed to meet the Emergency Response Action Plan (ERAP) requirements for substantial harm facilities regulated by 40 CFR 112.20.

The Emergency Action Guide reflects only the essential steps necessary to initiate an emergency response action: recognition, notification, and initial response. This portion of the Guide is concise and designed to be user friendly. The Emergency Action Guide does not detail all procedures necessary under these phases of a response, but provides information that is time-critical in the earliest stages of a response and a framework to guide responders through key steps necessary to mount an effective response.

The instructions for using this Emergency Action Guide are as follows:

1. Refer to the initial response flowchart (see Section II.1 below) that refers the user to the appropriate plan sections.
2. Determine what procedure(s) of the plan are necessary to guide you in your assignments.
3. Use the information contained in the plan to accomplish the initial response planning and implementation efforts.
4. Additional information contained in the Section III might be useful.

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II.1 INITIAL RESPONSE FLOWCHART


II.2 EAC/QI AND IMT DUTIES

EAC/QI—DEF has an Incident Management Team (IMT) that follows the Incident Command System (ICS). The team is provided with training and tabletop exercises to accomplish their assignments. Annex 1 describes the IMT which is the spill response management structure.

The first person supervising action to contain and control an incident is the EAC/QI or Alternate QI (AQI), normally the Station Manager, Production Manager or EH&S Specialist. In this role they act as the Incident Commander (IC) as defined in DEF's response organization.

The EAC/QI is responsible for the overall management of all incident activities including the development of strategy and implementation of the recovery. She/he has the authority to make contracts, expend funds and communicate with government representatives. In a small incident, the EAC/QI might perform all control and operational duties. As the incident increases in complexity he/she will delegate responsibility up to members of the Incident Management Team (IMT) for oil spills or to City/County Emergency Management organization for hazardous materials releases.

The EAC/QI must make an assessment of the incident (e.g., magnitude, safety considerations, extent and type of assistance needed) and initiate control actions based upon the assessment. The EAC/QI duties, including IC and QI roles, are included in Section III, Annex 1, Table A.1-3.

Skilled support personnel—Bartow Station personnel may be requested to assist trained emergency responders. By definition, these personnel are skilled in the operation of certain equipment, such as mechanized earth-moving equipment or digging equipment, who are needed temporarily to perform immediate emergency support work that cannot reasonably be performed by the response team. Such employees will be given an initial briefing prior to their participation in the response effort, including the use of personal protection equipment and the chemical hazards involved. Skilled support personnel, if needed, are not required to have the training given to the responders (29 CFR 1910.120[q][4]).

IMT—Offsite DEF corporate and station employees are trained and available to assist the onsite response team with the coordination of efforts with outside parties, such as communications, public relations, legal affairs, and procurement of offsite manpower and equipment. These employees have received training in their roles within DEF's ICS.

II.3 DISCOVERY PROCEDURES

The emergency-specific procedures to follow by the person(s) that recognize and report the emergency are provided in the tabbed sections under the heading "Discovery".

II. 4 INITIAL ACTION PROCEDURES

The emergency-specific procedures to follow by the EAC/QI are provided in the tabbed section under the heading "Initial Action". Additional EAC/QI guidance is provided in the Sustained Action procedures and the annexes.

II.5 POST-EMERGENCY ACTIONS

DEF will investigate each incident that has resulted in a major spill or other emergency incident. The investigation will describe:

- Date of the incident.
- Date the investigation began.
- Factors that contributed to the incident.
- Recommendations that resulted from the incident.

The findings of the incident investigation will be used to identify the need for improving work practices or equipment and will be discussed with DEF employees during safety or environmental briefings and during the annual IMT training.

DEF Environmental, Health & Safety Services (EHSS) will be responsible for keeping government agencies informed of the cleanup progress. This includes submission of any written reports that are required as follow-up to a spill verbally reported to the National Response Center (NRC) or State Warning Point. Revisions to this plan as a result of the incident investigation may also be submitted to the relevant agency, according to SPCC or other rules and described in Section I.

Additional information that is not time-critical on post-emergency actions is provided in the Emergency Management Guide, Section III.

II.6 MARINE TRANSFER FACILITY OPERATIONS


This document will only be maintained with the Terminal and Dock Plans.

FACILITY EMERGENCY ACTION GUIDE

Section II of III:

Discovery, Initial Actions, Sustained Actions, & NOTIFICATIONS

Use the color
coded tabs to
the right
to locate
specific emergency
action guidance.



1

FIRE, BOMB THREAT, MEDICAL
EMERGENCY, EVACUATION, CONFINED
SPACE EMERGENCY - Discovery & Initial
Actions - DEF Procedure EMG-BAF-00002

2

OIL SPILL
Discovery & Initial Actions

3

PIPELINE INCIDENT
Initial Actions

4

CHEMICAL RELEASE
Discovery & Initial Actions

5

OIL TANKS ALARM / LEAK
Discovery & Initial Actions

6

GAS PIPELINE INCIDENT
Discovery & Initial Actions

7

CRIMES IN PROGRESS
Discovery & Initial Actions

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SEVERE WEATHER
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EMERGENCY ACTION PLAN
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SITE MAPS & DIAGRAMS

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**BARTOW STATION EMERGENCY
MANAGEMENT ORG. CHART**

Document title

Bartow Plant Emergency Action Plan

Document number

SAF-BRZF-40202

Applies to: Bartow Plant - Florida

Keywords: safety; CT operations – Bartow CT Site – Safety; emergency

Legend:

OPS Operations
 ENG Engineering
 WMT Work Management
 TRN Training
 ENV Environmental
 FIN Financial
 ADM Administrative
 SAF Safety

Organizational Applicability

OPS	ENG	WMT	TRN	ENV	FIN	ADM	SAF
X				X		X	X

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8.7	Emergency Evacuation Assembly Locations	

1.0 PURPOSE

OSHA 29 CFR 1910.38 requires a written Emergency Action Plan that designates actions taken to ensure employee safety during fires, medical emergencies, and the evacuation of plant employees.

2.0 TERMS AND DEFINITIONS

First Responder - The first individual on the scene in an emergency situation, who will have the role of initiating a response to that emergency.

OSHA - Occupational Safety and Health Administration

Incipient Fire - A fire that has just begun and is of such size that poor visibility, smoke inhalation, and high temperatures have not reached the degree to require the use of breathing apparatus / protective gear. Examples of incipient stage fires include a fire in a wastebasket that just started or a fire on a piece of equipment that is in the beginning stage.

3.0 RESPONSIBILITIES

Managers and Supervisors

- Ensure all personnel under their supervision are fully aware of the requirements associated with this procedure. In addition to the required annual reviews to discuss any changes made during the year.
- Account for all employees and visitors under their supervision after an emergency.
- Communicate the requirements of this procedure to their employees and visitors under their supervision.

Occupational Health and Safety Specialists

- Providing safety support.
- Communicate any regulatory changes affecting emergency plans.

Employees

All employees are responsible for following this procedure in the event of an emergency and reporting any conditions at the facility that could affect the Emergency Action Plan.

4.0 PRECAUTIONS AND LIMITATIONS

4.1 The First Responder to any emergency SHALL only respond to their training capabilities in first aid and fire fighting.

4.2 The applicable attachments to this plan SHALL be completed for each event.

5.0 PROCEDURES

5.1 Fire Emergency

5.1.1 In the event of an actual emergency, there is a quick reference available in Attachment [8.1](#).

5.1.2 The first priority upon discovering a fire is to report the situation and obtain assistance. Reporting a fire shall be the responsibility of the First Responder discovering the fire. Reporting should be done before any attempt is made to extinguish the fire, other than a life-threatening situation.

5.1.3 Notification

1. The person discovering the fire **SHALL** call the Control Room at extension 311 and give the Operator the following information:
 - a. Their name
 - b. The location of the fire
 - c. The type and extent of the fire and other associated hazards
 - d. Any injuries associated with the incident
2. The Control Room Operator will repeat the location of the fire back to the caller.
3. The Control Room Operator will sound the emergency alarm; announce that there is a Fire Emergency, whether or not the alarm is a drill or an actual event and the location of the fire over the P. A. system. Wait 60 seconds and repeat.

NOTE: If the alarm is being sounded for any fire, the announcement should indicate “All personnel are to report to their emergency assembly locations.” Either in the Administrative Building parking lot, the parking area between the pipeline terminal building and pipeline trailer, or in front of the Bartow CT office. Assembly locations are shown on Attachment 8.7.
4. The Control Room Operator will call Bartow CT at extension 6236 to announce the emergency. If no one answers, call the contacts listed in Tab 9 of the Facility Response Plan.

5.1.4 Emergency Response for Incipient Fire.

Plant Members that are properly trained may fight fires that are in the "incipient stage". These are fires that can be extinguished or controlled using portable fire extinguishers, or small hose systems, without the need for firefighting personal protective equipment and/or self-contained breathing apparatus.

5.1.5 Fighting the Fire

1. The Shift Supervisor will be in charge at the scene of the fire and will call for assistance from other Supervisors and crews as needed.
 - a. An assessment of the fire will be made immediately at the scene. Unless the fire is minor and could be brought under control promptly, the Shift Supervisor at the scene of the fire will instruct the Control Room Operator to call 911 or the St. Petersburg Fire Department (only if there is a problem with 911) for assistance.
 - b. When a fire progresses past the incipient stage, (Incipient infers a fire that has just begun and is of such size that poor visibility, smoke inhalation, and high temperatures have not reached the degree to require the use of breathing apparatus / protective gear), the plant personnel fighting the fire **SHALL** withdrawal to a safe area and the Fire Department will fight the fire from that point forward

5.1.6 Emergency Response for Uncontrollable Fire

1. When the alarm sounds and Bartow CT is notified, all personnel **SHALL** report to the Administrative Building parking lot, the parking area between the Pipeline Terminal Building and Pipeline Trailer, or in front of the Bartow CT office.
2. All plant and contract personnel will be accounted for, complete Attachment [8.2](#) and the control room will then be notified.
3. The Shift Supervisor will be in charge at the scene of the fire.
4. If the fire has become uncontrollable, the plant emergency alarm will be sounded again and an evacuation notice will be announced. (Follow Section 5.4, Evacuation).
 - a. Any visitors will be the responsibility of the person whom they are visiting. Any tours will be the responsibility of the tour guide.
5. An Operations employee will contact the Guard House to control access to the plant during the fire.

AUTHORIZED COPY

- a. Only fire emergency vehicles and fire-fighting personnel will be allowed to enter the plant area.
 - b. If the fire department is called, the control room shall inform personnel at the front gate to keep entrance access clear.
6. The Control Room shall call 911 (or the St. Petersburg Fire Department if there a problem with 911) for assistance immediately following the announcement, if needed. Control Room shall provide the following information to 911:
- Name and address of Plant - Progress Energy, Bartow Plant
Plant phone number- 727-827-6169
Type and extent of fire- Gas, Oil, Structure, Brush, Other
Number of persons injured and the extent of injuries, and
Other pertinent information requested by 911 Operator.
7. During the emergency, the plant P. A. system and radios will be used only for plant operation and securing the fire.

5.1.7 Post Fire Duties

1. When the fire is secure, the Shift Supervisor in charge will contact the Control Room and cancel the fire emergency. The Control Operator will then announce "all clear, all clear, all clear" over the PA. The Bartow CTs **SHALL** be contacted and advised of the same.
2. The Shift Supervisor will be responsible for all firefighting equipment used during the emergency. All expended extinguishers will be immediately replaced with fully charged extinguishers.
3. The Shift Supervisor will complete a fire report (Attachment [8.3](#)) and send copies to the Operations and Results Superintendent, the Occupational Health & Safety Specialist and file a copy in the plant office.
4. Once the fire emergency is over, the Shift Supervisor will inspect the fire area the within the next day for proper clean-up and see that all fire fighting equipment has been properly restored.

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5.3 Medical Emergency

5.3.1 In the event of an actual emergency, there is a quick reference available in Attachment [8.5](#).

5.3.2 A medical emergency is declared whenever one or more individuals have been seriously injured such that there is a need for additional first aid help or to account for all personnel that may have been in the affected area. The intent is to provide a means by which individuals in the plant will be located and alerted in the event of emergency conditions.

5.3.3 Reporting an injury or medical emergency shall be the responsibility of the First Responder. The first responder should call the Control Room and provide the Operator with the following information:

1. Your name,
2. Location and time incident occurred,
3. Number of persons injured,
4. The type or extent of the injury,
5. Cause of the injury, if known, and
6. The Control Operator will repeat the information back to the first responder calling.

- 5.3.4 The Shift Supervisor will decide whether or not assistance from St. Petersburg EMS is needed.
- 5.3.5 Injury victim care efforts should be limited to first aid/CPR trained personnel or, as appropriate. Untrained persons should not attempt a rescue or movement of an injured individual unless the their life is in imminent danger due to hazards in the immediate area.
- 5.3.6 Alarms / Announcements
1. The Control Room Operator will sound the emergency alarm, announce that there is a Medical Emergency, whether or not the alarm is a drill or an actual event and the location of the medical emergency over the PA system. Wait 60 seconds and repeat.
- NOTE:** In the event of an injury or medical emergency that will not require 911 or St. Petersburg EMS to be called, the Control Room will indicate in the announcement that only “First aid/CPR Responders are to report to the area.”
- In the event of any serious medical emergency that will require 911 or St. Petersburg EMS to be called, the announcement should indicate “All personnel are to report the emergency muster location. The Control Room shall call 911 or the St. Petersburg EMS (only if there is a problem with 911) for assistance immediately following the plant announcement.
2. The Control Room Operator will call Bartow CT at extension 6236 to announce the emergency. If no one answers, call the contacts listed in Tab 9 of the Facility Response Plan.
- 5.3.7 Medical Emergency Procedure (EMS called)
1. When the alarm sounds and Bartow CT is notified, all personnel will report the assembly locations outside the Administrative Building, the Pipeline Terminal, Bartow CT office, or as directed during the announcement.
 2. All personnel will be accounted for by completing Attachment [8.2](#), and the Control Room will then be notified.
 3. The Shift Supervisor will be in charge at the scene of the injury.
 4. Only EMS and other emergency vehicles will be allowed to enter the plant gate.
 5. Security Personnel will take the first EMS vehicle to the scene.

6. During the emergency, the plant P. A. system and radios will be used only for plant operation and handling of the medical emergency.
7. When the medical emergency is secure, the Shift Supervisor in charge will contact the Control Room and cancel the medical emergency. The Control Operator will then announce "all clear, all clear, all clear" over the PA. The Bartow CTs **SHALL** be contacted and advised of the same.

5.3.8 Safety Considerations

If there is a potential for eye, face, hand, and/or head hazards, then safety glasses, appropriate gloves, and/or hard hats shall be worn. Precautions should be taken to prevent infection through blood-borne pathogens.

5.3.9 Follow up

Work-related fatalities and three or more employee hospitalizations **SHALL** be reported to the Occupational safety and Health Administration (OSHA) within eight hours. Corporate Environmental Health and Safety will make all the required notifications to OSHA and other required notifications to the Corporate Communications and Legal departments.

5.4 Evacuation

- 5.4.1 In extreme emergency situations, a plant evacuation may be necessary to ensure employee safety. Conditions for evacuation may include, but not be limited to: uncontrolled fire, natural disaster (such as hurricanes, floods), or chemical release that places plant employees at risk.

5.4.2 Incident Command

Evacuation will be determined by the Shift Supervisor, with concurrence of the Plant Manager, if available. Shift supervisor will assess the immediate situation and designate individuals necessary for a safe and orderly plant shutdown.

5.4.3 Alarms

1. The Control Room Operator will sound the emergency alarm, announce that there is a plant evacuation and whether or not the alarm is a drill or an actual event. Wait 60 seconds and repeat.
2. The Control Room Operator will call Bartow CT at extension 6236 to announce the emergency. If no one answers, call the contacts listed in Tab 9 of the Facility Response Plan.

5.4.4 Conducting the Evacuation

1. The Shift Supervisor will notify the Control Room to initiate evacuation of affected personnel by sounding the Plant Emergency Alarm and announcing an evacuation.
 - a. The alarm and announcement of the plant evacuation as stated in 5.4.3 will be used for the evacuation.
 - b. When the plant alarm sounds, it will be followed by an announcement as to whether or not the alarm is a drill or an actual event.
 - c. Personnel shall report to one of the assembly locations to be accounted for. Supervisors shall complete Attachment [8.2](#).
2. The affected groups' first line Supervisors **SHALL** verify evacuation of their assembled groups.
 - a. The route of evacuation will be as direct a route as possible to the assembly locations unless otherwise noted by the PA system.
3. The operating shift under the direction of the Shift Supervisor will remain to conduct an orderly shutdown of all plant equipment. The Shift Supervisor will ensure that all critical plant equipment is shut down prior to evacuation. The Shift Supervisor will then direct the dismissal of the remaining operating crew.
4. The O&R Superintendant will be the last person to evacuate the site.
5. At no time should any employee be placed at undue risk.

5.4.5. Evacuation of the Surrounding Areas

1. The St. Petersburg Fire Department is familiar with the facility and the products stored on site and will determine if the surrounding community should be evacuated.

5.5 Confined Space Emergency

- 5.5.1 In the event of an actual emergency, there is a quick reference available in Attachment [8.6](#).

NOTE: A Confined Space Emergency will generally involve a medical concern as well as confined space rescue operations. Actions from procedure Section 5.3 for Medical Emergency should be utilized concurrently as appropriate to the situation.

- 5.5.2 Reporting a Confined Space Emergency shall be the responsibility of the Confined Space Attendant or First Responder. The first responder should call the Control Room via radio or call 311 on a plant phone and provide the Operator with the following information:
- 1 Your name,
 - 2 Location of the Confined Space Emergency and time incident occurred,
 - 3 Number of persons injured,
 - 4 The type or extent of the injury,
 - 5 Cause of the injury, if known,
 - 6 The Control Operator will REPEAT the information back to the first responder calling.
- 5.5.3 Rescue efforts should be limited to persons trained in confined space rescue procedures. Untrained persons should not attempt a rescue or movement of an injured individual.
- 5.5.4 The Control Room shall call 911 and ask for a technical rescue team.
- 5.5.5 In the event of a Permit Required Confined Space event, the attendant will brief the rescue team, at which time the Rescue Team leader will take charge of the confined space.

NOTE: All Confined Space Entry Permits will become void if the plant emergency alarm is sounded due to a Confined Space Emergency. At that time, all employees will exit any Confined Space until the "All Clear" is given. All spaces will be evaluated and new permits issued.

5.6 Training

5.6.1 Fire Response Training

- a. All Employees:
1. General fire fighting awareness and hands-on training for all employees (annual).
 2. General awareness of fire alarms, evacuation actions, employee accounting actions, and special on-site fire hazards.

5.6.2 Medical Emergency Response Training

- a. All Employees:
1. General awareness of medical emergency issues (i.e., confined spaces, bloodborne pathogens, accounting of employees, responsibilities).
 2. CPR Training

3. First Aid Training

4. Defibrillator Training

5.6.3 Bomb Threat Training

a. All Employees:

1. General awareness training of evacuation procedures.

6.0 DOCUMENTATION

6.1 In the event of a fire, the on-duty Shift Supervisor must complete the Fire Report Form – [Attachment 8.3](#) and send copies to the Operations and Results Superintendent and the Occupational Health & Safety Specialist, and file a copy in the plant office.

6.2 In the event of an emergency, the on-duty Shift Supervisor must complete an Event Notification Report and route to the Plant Manager.

7.0 REGULATORY REFERENCES

29 CFR 1910.38

8.0 ATTACHMENTS/FORMS

8.1 Attachment [SAF-BRZF-40202-1](#) – Fire Emergency Quick Reference

8.2 Attachment [SAF-BRZF-40202-2](#) – Emergency Response Evacuation Checklist

8.3 Attachment [SAF-BRZF-40202-3](#) – Fire Report

8.4 Attachment [SAF-BRZF-40202-4](#) – Bomb Threat Quick Reference

8.5 Attachment [SAF-BRZF-40202-5](#) – Medical Emergency Quick Reference

8.6 Attachment [SAF-BRZF-40202-6](#) – Confined Space Emergency Quick Reference

8.7 Attachment [SAF-BRZF-40202-7](#) – Emergency Evacuation Assembly Locations

8.1 Fire Emergency Quick Reference

The following provides a summary of the actions that should be taken in the event of a fire emergency. Additional information is written in procedure section (5.1).

Precautions

When a fire progresses past the **INCIPIENT** stage, (Incipient infers a fire that has just begun and is of such size that poor visibility, smoke inhalation, and high temperatures have not reached the degree to require the use of breathing apparatus / protective gear), the plant personnel fighting the fire must withdrawal to a safe area and the Fire Department will handle from that point forward.

First Responder Discovering Emergency

Immediately notify the Control Room (at extension 311) of; name of person calling, location, type and extent of fire and any injuries.

Shift Supervisor (Affected Area)

Assume command and control over the situation.
Notify Control Room if outside assistance is needed.
As capable, remove any injured in immediate danger.
Remain at the scene until all clear signal sounded.
Assist responders as needed.

Control Operator(s)

Sound the emergency alarm and announce the following over the PA system:

- Announce that there is a fire emergency and whether or not the alarm is a drill or an actual event.
- Announce the location of the fire.
- Wait 60 seconds and repeat.

The Control Room Operator will call Bartow CT at extension 6236 to announce the emergency. If no one answers, call the contacts listed in Tab 9 of the Facility Response Plan.

If needed, call the St. Petersburg Fire Department (911) and provide the following:

- Name of the Plant - Progress Energy, Bartow Plant,
- Plant phone number - (727) 827-6169,
- Extent of fire & injuries, and
- Number of persons involved.

NOTIFY one of the following and request that individual to notify the remainder:

- Plant Manager
- Maintenance Superintendent
- Operations & Results Superintendent
- Production Supervisor Suncoast CT's
- Occupational Health & Safety Specialist
- Environmental Specialist

When instructed by the Shift Supervisor, announce "all clear, all clear, all clear".

8.2 EMERGENCY RESPONSE EVACUATION CHECKLIST

Shop ALL PRESENT

Administrative Building	<input type="checkbox"/>
Operations	<input type="checkbox"/>
Warehouse/Purchasing	<input type="checkbox"/>
Pipeline	<input type="checkbox"/>
Security	<input type="checkbox"/>
Construction	<input type="checkbox"/>
Bartow CT	<input type="checkbox"/>

ALL PRESENT

DR: _____	Contractor: _____	<input type="checkbox"/>
DR: _____	Contractor: _____	<input type="checkbox"/>
DR: _____	Contractor: _____	<input type="checkbox"/>
DR: _____	Contractor: _____	<input type="checkbox"/>
DR: _____	Contractor: _____	<input type="checkbox"/>
DR: _____	Contractor: _____	<input type="checkbox"/>
DR: _____	Contractor: _____	<input type="checkbox"/>

The MSOD is to report to assembly locations to confirm that all stations check in and all personnel are accounted for. Any person not accounted for will be searched for or otherwise accounted for. Administrative assistant **SHALL** bring guest sign-in book and evacuation checklist to assembly locations in order to account for personnel.

8.3 FIRE REPORT

UNIT: _____

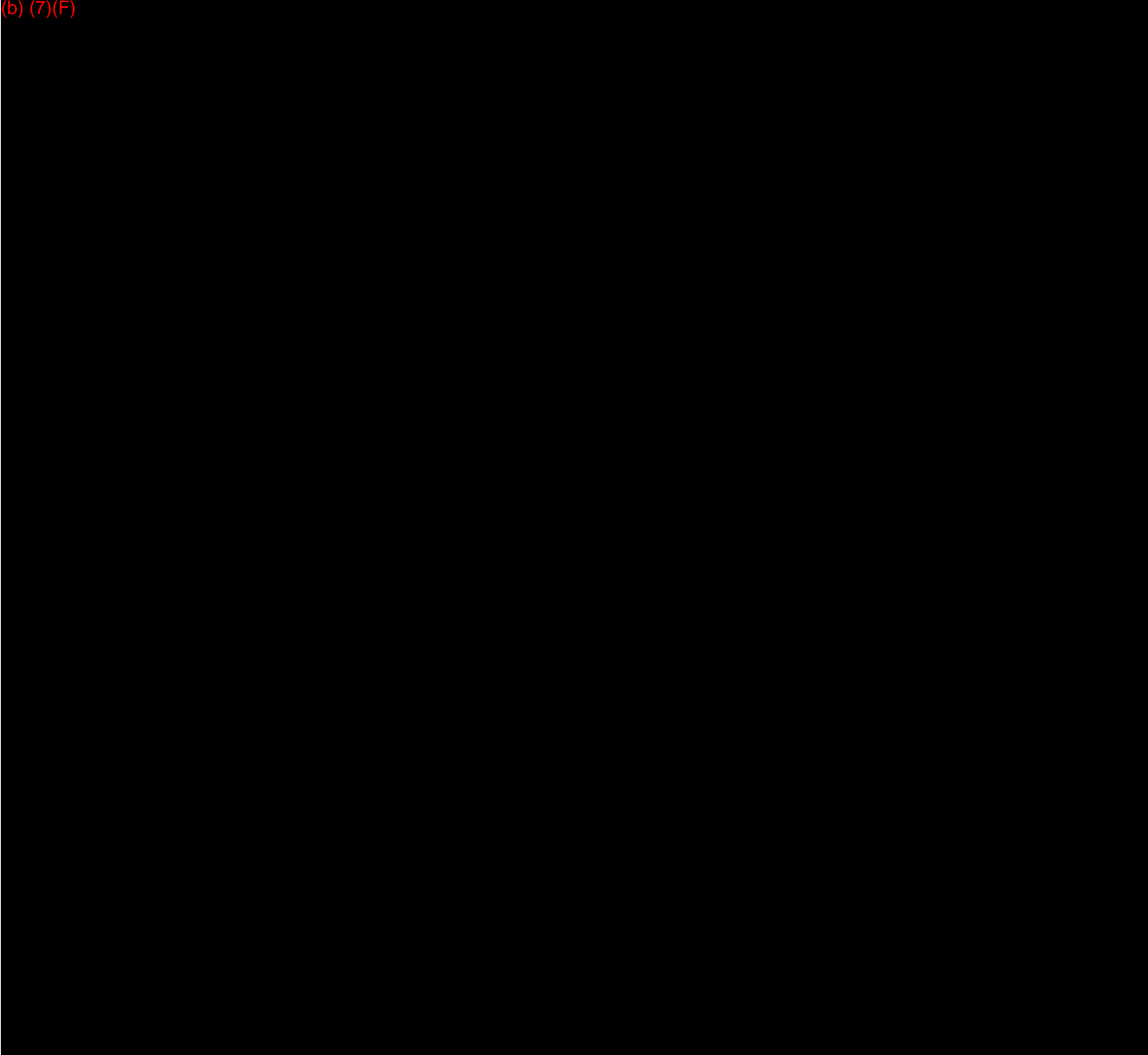
LOCATION: _____

DATE: _____ TIME OF ALARM: _____ TIME ALL CLEAR: _____

CAUSE OF FIRE: _____

EXTENT OF FIRE DAMAGE: _____

SHIFT SUPERVISOR/MECHANICAL SUPERVISOR: _____



8.5 Medical Emergency Quick Reference

The following provides a summary of the actions that should be taken in the event of a medical emergency. Additional information is written in procedure section (5.3).

First Responder Discovering Emergency

Immediately notify the Control Room (extension 311) of: name of caller, location of injured person(s), type of injury, and number of injured individuals

Shift Supervisor (Affected Area)

If a weekend, night, or holiday call for additional help by notifying:

- Plant Manager, or
- Maintenance Superintendent
- Operations & Results Superintendent
- Production Supervisor Suncoast CT's
- Occupational Health & Safety Specialist

Assume command and control over the situation and the Medical Responder Team.

If needed, Instruct Control Operator to announce that employees should report to their respective work centers (shops, control room and offices).

As capable, remove any injured in immediate danger.

Remain at the scene until all clear signal sounded.

Assist Emergency Responders as needed.

Control Operator(s)

Sound the emergency alarm and announce the following over the PA system:

- Announce that there is a medical emergency and whether or not the alarm is a drill or an actual event,
- Announce the location of the emergency two (2) times,
- If the emergency will not require EMS- indicate "first aid responders report to the area",
- If the emergency will require EMS- indicate "All plant and contract personnel report to the Assembly Locations", and
- Wait 60 seconds and repeat.

The Control Room Operator will call Bartow CT at extension 6236 to announce the emergency. If no one answers, call the contacts listed in Tab 9 of the Facility Response Plan.

If needed, call the EMS (911) and provide the following:

- Name of the Plant - Progress Energy, Bartow Plant,
- Plant phone number - (727) 827-6169,
- Type of emergency & injuries,
- Number of persons involved,
- Other pertinent Information asked by 911 operator, and

When instructed by the Shift Supervisor, announce “all clear, all clear, all clear”.

First Aid Responders

Report to the emergency scene

Provide assistance as directed by the Shift Supervisor

Notify the Shift Supervisor when the All Clear signal can be given to the Plant.

Occupational Health & Safety Specialist

Notify the Occupational Health and Safety Specialists of any incident with fatalities or three or more hospitalizations.

8.6 Confined Space Emergency Quick Reference

The following provides a summary of the actions that should be taken in the event of a Confined Space Emergency. Additional information is written in procedure section (5.5)

Precautions

Only personnel trained and qualified in Confined Space rescue should attempt rescue operations. It is likely that a Confined Space Emergency will also involve a Medical Emergency. Actions for Medical Emergency should be performed concurrently if this is the case.

First Responder Discovering Emergency

Immediately Notify the Control Room (at extension 311) of: name of person calling, location of confined space, and extent / number of any known injuries.

Shift Supervisor

Assume command and control over the situation.
Notify the Control Room if outside assistance is needed.
Remain at the scene until the all clear signal is sounded.
Assist Emergency Responders as needed.

Control Operator(s)

CALL the St. Petersburg Fire Department (911) and provide the following:

- Name of the Plant - Progress Energy, Bartow Plant,
- Plant phone number - (727) 827-6169,
- State: "A Technical Rescue Response Unit is needed for a confined space rescue",
- Number of persons involved, and
- Other pertinent information asked by 911 or the St. Petersburg Fire Department.

NOTIFY one of the following and request that individual to notify the remainder:

- Plant Manager
- Maintenance Superintendent
- Operations & Results Superintendent
- Production Supervisor Suncoast CT's
- Occupational Health & Safety Specialist

11.1 Fire Emergency Quick Reference

The following provides a summary of the actions that should be taken in the event of a fire emergency. Additional information is written in procedure section (7.1).

Precautions

When a fire progresses past the **INCIPIENT** stage, (**Incipient** infers a fire that has just begun and is of such size that poor visibility, smoke inhalation, and high temperatures have not reached the degree to require the use of breathing apparatus / protective gear), the plant personnel fighting the fire must **WITHDRAW** to a safe area and the Fire Department will handle from that point forward.

First Responder Discovering Emergency

Immediately notify the Control Room of; name of person calling, location, type and extent of fire and any injuries.

Shift Supervisor (Affected Area)

ASSUME Command and Control over the situation
NOTIFY Control Room if outside assistance is needed
 As capable, **REMOVE** any injured in immediate danger
 Remain at the scene until all clear signal sounded
ASSIST responders as needed

Control Operator(s)

SOUND the emergency alarm and announce the following over the PA system:

- **ANNOUNCE** that there is a fire emergency and whether or not the alarm is a drill or an actual event
- **ANNOUNCE** the location of the fire
- Wait 60 seconds and **REPEAT**

If needed, **CALL** the St. Petersburg Fire Department (911) and provide the following:

- Name of the Plant
- Plant Phone Number
- Extent of Fire & Injuries
- Number of Persons Involved
- Other Pertinent Information asked by 911 or the St. Petersburg Fire Department

NOTIFY one of the following and request that individual to notify the remainder:

- Plant Manager
- Maintenance Superintendent
- Operations & Results Superintendent
- Occupational Health & Safety Specialist
- Environmental Specialist

When instructed by the Shift Supervisor, **ANNOUNCE** "all clear".

11.2 EMERGENCY RESPONSE EVACUATION CHECKLIST

<u>LOCATION</u>	<u>EXT. NO.</u>	<u>ALL PRESENT</u>
Scene of the fire	Radio	<input type="checkbox"/>
Electric Shop	6225	<input type="checkbox"/>
I&C Shop	6226	<input type="checkbox"/>
Storeroom	6248	<input type="checkbox"/>
Plant Office	6239	<input type="checkbox"/>
Control Room	6201	<input type="checkbox"/>
Machine Shop	6228	<input type="checkbox"/>
Laboratory	6227	<input type="checkbox"/>

THE OPERATIONS AND RESULTS SUPERINTENDENT OR SHIFT SUPERVISOR WILL SEE THAT ALL STATIONS CHECK IN AND ALL PERSONNEL ARE ACCOUNTED FOR. ANY PERSON NOT ACCOUNTED FOR WILL BE SEARCHED FOR OR OTHERWISE ACCOUNTED FOR.

In the event of an evacuation, the Shift Supervisor is the last person to evacuate the site.

O&R / Shift Supervisor

Date

11.3 FIRE REPORT

UNIT: _____

LOCATION: _____

DATE: _____ TIME OF ALARM: _____ TIME ALL CLEAR: _____

CAUSE OF FIRE: _____

EXTENT OF FIRE DAMAGE: _____

SHIFT SUPERVISOR/MECHANICAL SUPERVISOR: _____

Attachment EMG-BAF-00002-4

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11.5 Medical Emergency Quick Reference

The following provides a summary of the actions that should be taken in the event of a medical emergency. Additional information is written in procedure section (7.3).

First Responder Discovering Emergency

Immediately **NOTIFY** Control Room of: name of caller, location of injured person(s), type of injury, and number of injured individuals

Shift Supervisor (Affected Area)

If a weekend, night, or holiday **CALL** for additional help by notifying:

- Plant Manager, or
- Maintenance Superintendent
- Operations & Results Superintendent
- Occupational Health & Safety Specialist

ASSUME Command and Control over the situation and the Medical Responder Team

If needed, **INSTRUCT** Control Operator to announce that employees should report to their respective work centers (shops, control room and offices).

As capable, **REMOVE** any injured in immediate danger

REMAIN at the scene until all clear signal sounded

ASSIST Emergency Responders as needed

Control Operator(s)

SOUND the emergency alarm and announce the following over the PA system:

- **ANNOUNCE** that there is a medical emergency and whether or not the alarm is a drill or an actual event
- **ANNOUNCE** the location of the emergency two (2) times
- If the emergency **will not** require EMS- indicate **"First aid responders report to the area"**
- If the emergency **will** require EMS- indicate **"All personnel report to their work centers (shops, control room and offices)"**
- Wait 60 seconds and **REPEAT**

If needed, **CALL** the EMS (911) and provide the following:

- Name of the Plant
- Plant Phone Number
- Type of Emergency & Injuries
- Number of Persons Involved
- Other Pertinent Information asked by 911 operator.

When instructed by the Shift Supervisor, **ANNOUNCE** "all clear".

First Aid Responders

REPORT to the emergency scene

PROVIDE assistance as directed by the Shift Supervisor

NOTIFY the Shift Supervisor when the All Clear signal can be given to the Plant.

Occupational Health & Safety Specialist

NOTIFY the EHS Manager of any incident with fatalities or three or more hospitalizations

11.6 Confined Space Emergency Quick Reference

The following provides a summary of the actions that should be taken in the event of a Confined Space Emergency. Additional information is written in procedure section (7.5)

Precautions

Only personnel trained and qualified in Confined Space rescue should attempt rescue operations.

It is likely that a Confined Space Emergency will also involve a Medical Emergency. Actions for Medical Emergency should be performed concurrently if this is the case.

First Responder Discovering Emergency

Immediately **NOTIFY** the Control Room of: name of person calling, location of confined space, and extent / number of any known injuries.

Shift Supervisor

ASSUME Command and Control over the situation.

NOTIFY the Control Room if outside assistance is needed.

REMAIN at the scene until the all clear signal is sounded.

ASSIST Emergency Responders as needed.

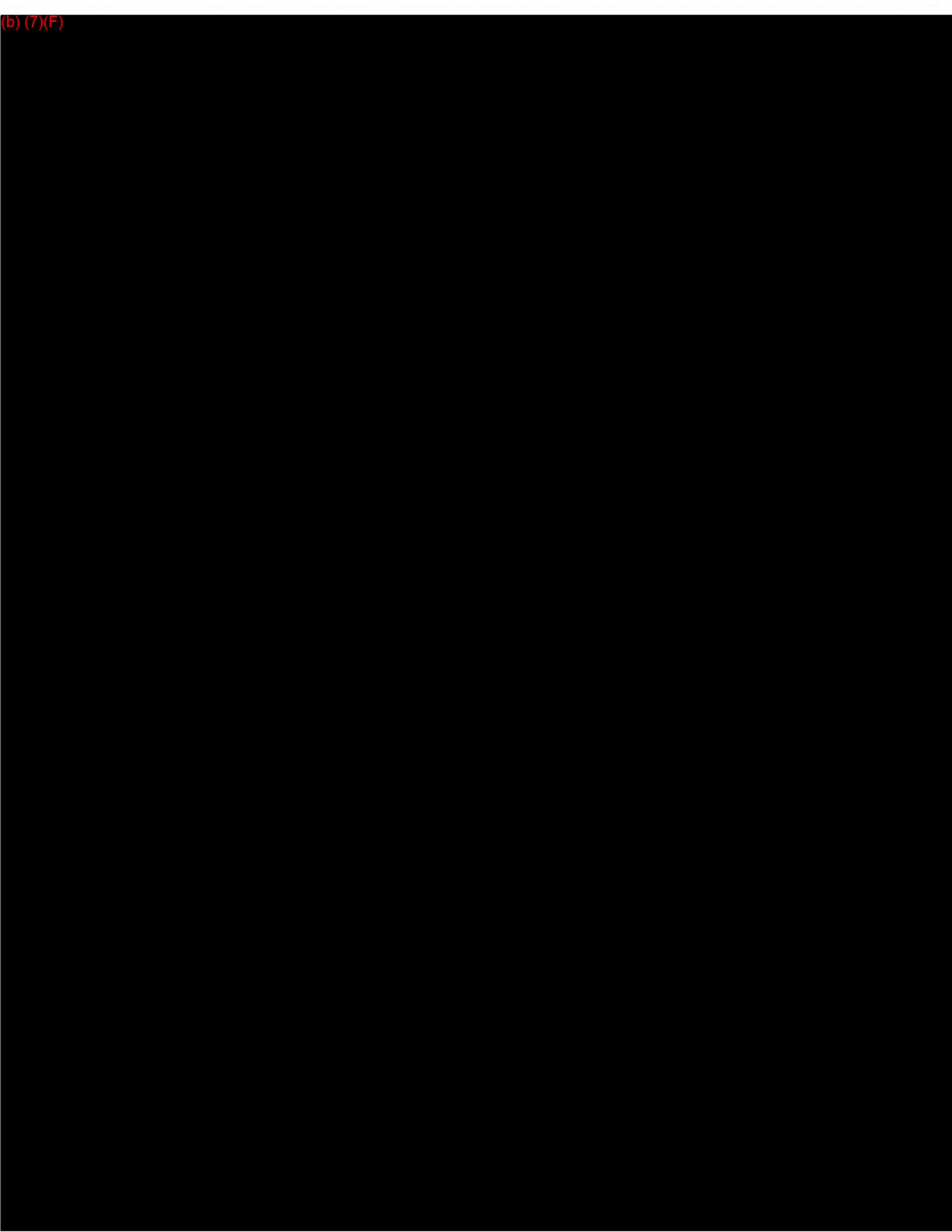
Control Operator(s)

CALL the St. Petersburg Fire Department (911) and provide the following:

- Name of the Plant
- Plant Phone Number
- State: **"A Technical Rescue Response Unit is needed for a confined space rescue".**
- Number of Persons Involved
- Other Pertinent Information asked by 911 or the St. Petersburg Fire Department

NOTIFY one of the following and request that individual to notify the remainder:

- Plant Manager
- Maintenance Superintendent
- Operations & Results Superintendent
- Occupational Health & Safety Specialist



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OIL SPILL DISCOVERY	
	IMMEDIATE ACTIONS
Person Discovering Spill	<p>Insure your safety.</p> <p>Warn others in the immediate area.</p> <p>Notify the control room. Dial 5555.</p> <p>Provide the following information;</p> <ul style="list-style-type: none"> • Time of Discovery • Location of the leak? • Source of leak? • Product name and estimated quantity. • Has the leak stopped? • Are there injuries? • Area covered by the released oil? • Where is the oil moving? <p>Perform the following IF YOU CAN DO IT SAFELY,</p> <ul style="list-style-type: none"> • Stop the leak. • Block storm drains in the area. • Stop the flow of oil by building berms or other obstructions.
Shift Supervisor or Plant Operator	
<u>Fill out Oil Spill Data Sheet</u> – See next page under this tab.	
Emergency Action Coordinator (EAC)	Go to page 3 under this tab, <i>INITIAL ACTIONS</i> - Oil Spill.

OIL SPILL DATA SHEET

Fill in or **circle** each item to the best of caller's knowledge.

- 1) Date: _____
- 2) Time Spill Discovered: _____
- 3) Name of caller: _____
- 4) Phone # of caller: _____
- 5) Location of caller: _____
- 6) Location of spill: _____
- 7) Oil Source: Pipeline, Tank, Mobile Equipment, Ship/barge, Other: _____
- 8) Type Oil: #2 Fuel Oil (diesel) , #6 Fuel Oil, Gasoline, Other: _____
- 9) Has oil entered a storm water system or Tampa Bay? Yes No
- 10) If no, is the spill near a stormwater system or Tampa Bay? Yes No
If yes, where? : _____
- 11) Estimated volume of spill (gallons)? _____
- 12) Are you aware of any injuries relating to the spill? Yes No
If yes, provide details : _____
- 13) Is spill contained? Yes No
- 14) Any businesses or properties in the immediate vicinity? Yes No
If Yes, description: _____
- 15) Are emergency response services needed? Yes No

Spill Response Ambulatory Hazmat Fire Department Security circle all needed
Go to next page, *INITIAL ACTIONS* – OIL SPILL.

OIL SPILL INITIAL ACTIONS		
EMERGENCY ACTION COORDINATOR	ACTIONS	NOTES
	Receive information from the Station Operator.	
OIL CONTAINED – Oil held within containment.	Notify contacts #1 through #4 in the Notifications Phone List contained under Tab 9 of this section.	<input type="checkbox"/> Initial if action complete. n/a' if not applicable.
OIL OUTSIDE CONTAINMENT – Oil is outside of the containment but will not move off site or enter the storm drain system.	Notify contacts #1 through #4 in the Notifications Phone List under Tab 9 of this section.	<input type="checkbox"/> Initial if action complete. n/a' if not applicable.
	Control the spread by building berms with earth, sorbents or other materials.	
OIL IN WATER – (large spill) Oil has entered the water or storm drain.	<ol style="list-style-type: none"> Announce spill over plant public address system Put on the Q.I. vest to ID the Q.I. to all individuals involved.. Designate a Field Historian and have him / her report to the control room. <ul style="list-style-type: none"> <u>Have the Field Historian use the Timeline Template located at the end of this tab.</u> Notify gate guard (x6220) of spill and instruct them to log all site entries and activity Have notifications of contacts #1 through #4 performed, under the <u>Notifications Phone List and/or Calling Tree</u> under Tab 9 of this section. <ul style="list-style-type: none"> Perform notifications in order provided Fill out calling log in the contacts during notifications Contact #5 (regulatory agencies) will be performed by contact #4 (Env. Specialist), contact #7 (DEF Spill Advisor), or contact #8 (Terminals & Pipeline Supervisor). <u>Shift</u> 	<input type="checkbox"/> Initial if action complete. n/a' if not applicable. <input type="checkbox"/> Initial if action complete. n/a' if not applicable. <input type="checkbox"/> Initial if action complete. n/a' if not applicable. <input type="checkbox"/> Initial if action complete. n/a' if not applicable. <input type="checkbox"/> Initial if action complete. n/a' if not applicable. <input type="checkbox"/> Initial if action complete. n/a' if not applicable. <input type="checkbox"/> Initial if action complete. n/a' if not applicable. <input type="checkbox"/> Initial if action complete. n/a' if not applicable.

	<p><u>Supervisor performs notification if the above people are not directly contacted and able to perform notifications.</u></p> <p>6. Give instructions to log all incoming public spill related calls in the log located on page #14 of this tab. If administrative assistant is available, direct all public (non-regulatory) calls to office assistant.</p> <p>7. Proceed to muster location with the designated Field Historian and perform a pre-job briefing (PJB)</p> <ul style="list-style-type: none"> • Use the PJB form located at the end of this tab. <p>8. Fill out Agency Spill Data sheet located on page #13 of this tab. (usually Env. Specialist will handle if available).</p> <p>Note 1: If spill occurs during a barge unloading process, we will need to vessel name, length, and hull material.</p> <p>Note 2: Plant Shift Supervisor is the Emergency Action Coordinator (EAC) until the duty has been handed to another Qualified Individual. This must be verbally communicated between Q.I.'s.</p>	<p><input type="checkbox"/> Initial if action complete. 'n/a' if not applicable.</p> <p><input type="checkbox"/> Initial if action complete. 'n/a' if not applicable.</p> <p><input type="checkbox"/> Initial if action complete. 'n/a' if not applicable.</p> <p><input type="checkbox"/> Initial if action complete. 'n/a' if not applicable.</p>
	Begin control and containment efforts.	
	Go to Tab # 10, OIL SPILL ACTION GUIDELINES	

Additional NOTES space on back of page or at the end of this tab.

OIL SPILL CONTRACTED ASSISTANCE

On Water Recovery/Shoreline Cleanup

SPILL RECOVERY CONTRACTORS

CONTRACTOR & ADDRESS	CONTACT & PHONE NUMBER	RESPONSE TIME in HRS.	EQUIPMENT AVAILABLE
Southern Waste Services, Inc. 8100 Park Boulevard, Suite A-36 Pinellas Park, FL 34665 (OSRO B-/N, A-R/C) Contract No. 94197	(800) 852-8878 Fax (727) 546-5365	1	Oil Spill Recovery Organization (OSRO) River/Canal & Inland MMPD= Maximum Most Probable Discharge, WCD1, WCD1, WCD3 = Worst Case Discharge Tiers 1, 2 and 3
Southern Waste Services, Inc. 1619 Moyland Road Panama City Beach, FL 32407	(800) 852-8878 Fax (850) 234-2451	N/A	
Southern Waste Services, Inc. 2190 N. Crede Avenue Crystal River, FL 34428	(800) 852-8878	N/A	
Southern Waste Services, Inc.	(800) 852-8878 Ft. Lauderdale, FL FAX (954) 587-5244 Pensacola, FL FAX (850) 969-0094 Tampa, FL FAX (813) 241-6765 Orlando, FL FAX (407)870-8519 Lake Wales FAX (863) 696-0998 Savannah, GA FAX (912) 966-0076 Montgomery, AL FAX (205) 252-8650	N/A	
The Meredith Management Group, Inc. Station Square Three, Suite 202 37 North Valley Road Paoli, PA 19301-1314	<u>Capt. Tom Neumann</u> 24 Hr. (610) 725-8286 FAX (610) 525-5772	8	

AGENCY SPILL DATA SHEET

NOTIFICATION REMINDERS

- Remain calm.
- Any report of a spill should not contain unverified information.
- Never speculate as to cause of the incident.
- Document all persons and/or agencies notified and content of message.
- **DO NOT DELAY** reporting due to incomplete information.

INCIDENT INFORMATION NOTIFICATION FORM	INCIDENT NAME:	INFORMATION AS OF:	
		DATE	TIME
FACILITY INFORMATION AND POINTS OF CONTACT			
Facility: P.L. Bartow Plant 1601 Weedon Island Drive St. Petersburg, FL 33702 Pinellas County (727) 827-6100		Owner/Operator: Duke Energy Florida, Inc. P. O. Box 14042, (299 – 1 st Avenue North) St. Petersburg, FL 33733 (727) 820-5848	
NATIONAL RESPONSE CENTER (NRC) (800) 424-8802 – (202) 267-2675 Florida State Warning Point (800) 320-0519			
Date and Time of Notification:			
Person Making Notification (Name/Title):			
NRC Person Receiving Report:		NRC Case No.:	
INCIDENT INFORMATION			
Emergency Action Coordinator:			
Latitude/Longitude:			
Type of Casualty:			
Number of Tanks Impacted:		Total Capacity of Affected Tanks:	
Material(s) Spilled:		Viscosity:	
Estimated Quantity Spilled:		Estimated Date and Time of Spill:	
Source Secured?:		If Not, Estimated Spill Rate:	
Threatened/Affected Waterways:		Estimated Quantity in the Water:	
Notes:			
INCIDENT STATUS			
Actions Taken to Correct or Mitigate Incident:			
IMPACT			
Number of Persons on Site:		Were there Evacuations? (Y/N/U)	
Number of Injuries:		Number of Evacuated:	
Number of Fatalities:			
Was there any Damage? (Y/N/U)		Damage in Dollars:	
Any information about this incident not recorded elsewhere on this form:			
ENVIRONMENTAL INFORMATION			
Wind Speed: mph	Wind Direction:	Air Temperature: °F	Water Temperature: °F
Wave Height: feet	Wave Direction:	Rain? (Y/N)	Tide:
Current: mph	Current Direction:	Overcast: %	High Tide at: Hours
Swell Height: feet	Swell Direction:		Low Tide at: Hours
Prepared By:			Date/Time Prepared:

Page 7 of 10

Oil Spill Response/Drill Prejob Briefing Checklist – Bartow Station

Date: _____ Time: _____

Person Performing PJB: _____

- 1) ☐ Assemble all shops at the designated meeting location

- 2) ☐ Review the current spill/drill situation – Discuss:
 - Product spilled
 - Location of spill
 - Estimated volume of spill (if known)
 - Weather conditions that could affect response
 - Plant operational status

- 3) ☐ State who the person in charge (Emergency Action Coordinator – EAC) currently is
 - Identify alternates

- 4) ☐ Establish response priorities
 - Boom deployment, sandbagging, sorbent use, earthen berm creation, trenching, etc.
 - If booming is required, instructions are available for review in the discharge canal trailer box, control room, Env. Specialist's office, terminal, machine shop, and Facility Emergency Response Guide.

- 5) ☐ Establish work groups WITH RADIOS and vehicles
 - Assign people to groups – volunteering can take too much time
 - Reminder – non-OPA trained individuals should be assigned non-boom deployment activities (sand bagging, etc.)

- 6) ☐ Appoint safety representatives to monitor response
 - Use I/C and Electric Shop personnel in addition to the Plant safety Specialist (if available).

- 7) ☐ Review appropriate PPE and potential safety issues
 - Gloves
 - Personal floatation devices if within 6 ft of water's edge (located in terminals, discharge canal boom trainer, Env. Specialist's office)
 - Petroleum vapors
 - Very soft sand/mud at the screen wash water discharge boom location
 - If diesel or gasoline, is ignition a possibility?

- 8) ☐ Emergency Action Coordinator reminders:
 - Have you Field Historian record our response actions
 - Digital audio recorders are available in the control room for you or the historian
 - Ensure someone has been tasked with Management and regulatory notifications,
 - Keys will be needed to open gates

- 9) ☐ Return this PJB to Plant Env. Specialist or Safety Specialist

OIL PIPELINE INCIDENT INITIAL ACTION		
EMERGENCY ACTION COORDINATOR	ACTIONS	NOTES
Pipeline Leak	Receive information from the station operator	
	Notify Bartow / Anclote Pipeline Terminal. Have them shut the pipeline down.	
	Perform notifications of contacts #1 through #4 and #7 in the Notifications Phone List, tab #9 of this section.	
	Go to tab #10 of this section, OIL SPILL ACTION GUIDELINES	
Unexplained Pressure Drop	Notify Bartow / Anclote Pipeline Terminal. Have them shut the pipeline down.	
	Dispatch investigation team. Check the water crossings first. [See Section III - Oil Spill Recovery Actions (Annex 5) for crossing locations.]	
	Perform notifications of contacts #1 through #4 and #7 in the Notifications Phone List, tab #9 of this section.	
	If a release is discovered, go to tab #10 of this section, OIL SPILL ACTION GUIDELINES. Refer to Section III, Recovery Action (pgs. 15-27).	
Physical Damage Report	Notify Bartow / Anclote Pipeline Terminal. Have them shut the pipeline down.	
	Dispatch investigation team.	
	Perform notifications of contacts #1 through #4 and #7 in the Notifications Phone List, tab #9 of this section.	
	Further action will depend on extent of damage.	
Threats	Perform notifications of contacts #1 through #4 and #7 in the Notifications Phone List, tab #9 of this section.	
	Corporate Security will lead all threats actions.	

CHEMICAL RELEASE DISCOVERY	
	IMMEDIATE ACTIONS
Person Discovering the Release	Insure your safety.
	Warn others in the immediate area.
	Notify the control room. Dial 5555 .
	Provide the following information; <ul style="list-style-type: none"> • Product released? <ul style="list-style-type: none"> • Liquid? • Gas? • Solid? • Amount? • Location of leak? • Is leak stopped? • Are there injuries? • Where is the released product moving?

Station Operator	Receive the information from the reporting party.
Collect the following information:	
• Product name: _____	
• Leak location: _____	
• Leak status: _____	
• Injuries reported, Y/N (If yes, complete Injury/Illness Discovery)	
• Area contaminated and direction of product flow.	

• Wind direction & speed: _____	
• MSDS sheet. (Call 3E (800) 451-8346) or use the intranet – Tools & Resources then MSDS's	
• 50% Rayon Grade Caustic – GE Betz	
• 93% Sulfuric Acid – GE Betz	
Sound the station alarm	
Make the following announcement three times, slowly and clearly, over the station public address system "ATTENTION, ATTENTION, THERE IS A (name of chemical) LEAK AT (location). ALL PERSONS (depending on situation) 1) REMAIN CLEAR OF AREA UNTIL NOTIFIED 2) REPORT TO (give muster location)"	
Emergency Action Coordinator (EAC)	Go to next page, INITIAL ACTIONS - Chemical Release.

Additional NOTES space on back of page or at the end of this tab.

CHEMICAL RELEASE INITIAL ACTIONS		
EMERGENCY ACTION COORDINATOR	ACTION	NOTES
	Receive information from the Station Operator.	
	Review MSDS.	
Is it possible the material will move off the station property?	Call 911 Provide the information collected by the Station Operator.	
	Post a <u>guide at the gate</u> for the Emergency Response Team. Provide MSDS to EMT.	
Will material remain on station property?	Is EVACUATION necessary? (Go to Tab #1 in this section, Evacuation Plan)	
	Are there injuries? (See Tab #1 in this section, Injury/Illness)	
	Is off site assistance needed? (See Tab #9 in this section, Notification Phone Lists)	
	Will station personnel isolate the spill area for safety, control, and decontamination? (Go to Tab #11, Emergency Action Plan)	
Internal Notifications	Perform notifications of contacts #1 through #4 in the Notifications Phone List contained in Tab #9 of this section.	
Has a Reportable Quantity been released?	Insure the National Response Center is notified immediately. (See Tab #9 in this section, Notification Phone Lists).	

STORAGE TANKS Petro Sense Under Tank Leak Detector ALARM RESPONSE PROCEDURES DISCOVERY	
	IMMEDIATE ACTIONS
If the local audio/visual alarm is activated the following procedure should be implemented.	
Person discovering the Alarm	Notify the Control Room. Dial 5555 .
	Press the acknowledge button on the alarm box - this will stop the audio alarm only. The visual alarm light will remain activated.
Shift Supervisor or Station Operator	NOTES:
Receive alarm information from the reporting party	
Who is reporting the alarm?	
Have they silenced the audio alarm?	
Do they see oil overflowing the tank?	
Do they see liquid oil on the ground? Where?	
Is there a strong odor of oil?	
If leak is confirmed, perform notifications of contacts #1 through #4 in the Notifications Phone List contained under Tab #9 of this section.	
Emergency Action Coordinator (EAC)	Go to next page, INITIAL ACTIONS – Tank Monitor Alarm

Additional NOTES space on back of page or at the end of this tab.

STORAGE TANKS Petro Sense Under Tank Leak Detector ALARM RESPONSE PROCEDURES INITIAL ACTIONS		
Emergency Action Coordinator	ACTIONS	NOTES
INVESTIGATE	Receive information from the control room.	
	Send investigator to do a walk around inspection of the tank.	
	The investigator should look for: <ul style="list-style-type: none"> • Signs of a tank overfill, • Leaking tank fittings, • Puddles of oil, • Oil wet soil, • Areas of strong petroleum odor. 	
If a leak is NOT obvious:	Contact Alvin Hite, FP Operations and Maintenance Support or the FCIE Monitoring Service for an interpretation of the alarm. (See the Notifications Phone List, Tab #9 of this section).	
If a leak IS discovered>	Go to: 1. Tab #2 - OIL SPILL 2. Tab #10 - Oil Spill Action Guidelines, Leaking Storage Tanks.	
REPORTS	Go to: The on-line Environmental Compliance Manual, Above Ground Storage Tanks section, Incident Notification and Discharge Reporting. http://progressnet/plantpub/pdf/evcfpc00035.pdf	

GAS PIPELINE INCIDENT INITIAL ACTIONS		
EMERGENCY ACTION COORDINATOR	ACTIONS	NOTES
	Receive information from the reporting party.	

Pipeline leak.	Notify: Florida Gas Transmission Co. 24 HR Gas Control #: (713) 853-5555 or (713) 654-7836 Local Rep.: Ed Morrow (727) 516-0351 (pager)	
	Consider: Immediate shutdown of all units and all spark producing devices. Station evacuation. (See Tab # 1, Evacuation Plan, in this section.)	
	Notify: <u>Perform notifications</u> of contacts #1 through #4 in the Notifications Phone List contained under tab #9 of this section.	

(b) (7)(F)



(b) (7)(E)





Incident Report

REPORT DATE	DIVISION	REPORTING LOCATION
-------------	----------	--------------------

TYPE OF INCIDENT:

- ☐ Burglary (Building) ☐ Burglary (Vehicle) ☐ Theft ☐ Robbery ☐ Vandalism
☐ Trespass ☐ Assault ☐ Narcotics violation
☐ Other _____

DATE/TIME DISCOVERED	LOCATION OF INCIDENT	DATE/TIME OF INCIDENT
DISCOVERED BY		TELEPHONE

BUILDING & VEHICLE INFORMATION (Burglary-Theft-Vandalism)

IF BUILDING, WHERE & HOW WAS ENTRY GAINED

BUILDING WAS LOCKED <input type="checkbox"/> YES <input type="checkbox"/> NO		ALARMS <input type="checkbox"/> YES <input type="checkbox"/> NO		AREA LIGHTED <input type="checkbox"/> YES <input type="checkbox"/> NO	
VEHICLE WAS LOCKED <input type="checkbox"/> YES <input type="checkbox"/> NO	KEYS IN VEHICLE <input type="checkbox"/> YES <input type="checkbox"/> NO		COMPANY VEHICLE NUMBER		YEAR & MAKE
PROPERTY TAKEN FROM CAB <input type="checkbox"/> YES <input type="checkbox"/> NO		FROM STORAGE BIN <input type="checkbox"/> YES <input type="checkbox"/> NO		FROM BED <input type="checkbox"/> YES <input type="checkbox"/> NO	

DETAILS OF INCIDENT (USE SUPPLEMENT PAGE IF NEEDED, INCLUDE ALL AVAILABLE INFORMATION)

LIST PROPERTY STOLEN/DAMAGED, & VALUE (USE SUPPLEMENT PAGE IF NEEDED)

TOTAL VALUE\$		
POLICE NOTIFIED <input type="checkbox"/> YES <input type="checkbox"/> NO	DEPARTMENT & OFFICER	REPORT NUMBER
REPORT SUBMITTED BY	TELEPHONE NUMBER	

NOTES:

SEVERE WEATHER Initial Action		
Emergency Action Coordinator	Actions	Notes
National Weather Service announces a WATCH condition.	Tornado <ul style="list-style-type: none"> • Inform station personnel via PA • Notify <ul style="list-style-type: none"> • Station Manager • Operations & Results • Superintendent 	
	Severe Weather <ul style="list-style-type: none"> • Inform station personnel via PA. <ul style="list-style-type: none"> • Follow the Bartow Station Hurricane / Storm Plan. 	
	Hurricane <ul style="list-style-type: none"> • Follow the Bartow Station Hurricane / Storm Plan. 	
National Weather Service announces a WARNING .	Tornado <ul style="list-style-type: none"> • Sound Alarm. • Instruct personnel to take shelter. • Notify <ul style="list-style-type: none"> • Station Manager • Operations & Results • Superintendent 	
	Severe Weather <ul style="list-style-type: none"> • Notify <ul style="list-style-type: none"> • Station Manager • Operations & Results • Superintendent 	
	Hurricane <ul style="list-style-type: none"> • Follow the Bartow Station Hurricane / Storm Plan. 	

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CONTACTS

PHMSA 000066422

CALL LOGGING

		Time Called (00:00)	Directly Contacted (X)	Left Message (X)	Paged (X)
1) Station Manager Emergency Action Coordinator / Qualified Individual (EAC/QI) Reginald Anderson Notes:					
Cell:	386-748-0139				
(b)					
Office:	727-827-6161				
2) Operations & Results Superintendent EAC / Alternate Qualified Individual (AQI) Dave Brown Notes:					
Cell:	727-432-1351				
(b)					
Office:	727-827-6160				
3) Maintenance Superintendent, EAC / AQI Jeff Hart Notes:					
Cell:	813-957-5167				
(b)					
Office:	727-827-6205				
4) Environmental Specialist, EAC / AQI Terese Dodge Notes:					
Cell:	813-480-8635				
(b)					
Office:	727-827-6107				
Regulatory Agency Notifications (situation dependent) <u>Responsibility of contacts # 4, #6, or #7. Shift Supervisor's responsibility if they are not directly contacted.</u> <ul style="list-style-type: none"> Agencies below are contacted ONLY if it is confirmed that Bartow Station Site is the source of the oil in the water. If Bartow Station Site is not the source of oil in the water, the Coast Guard may be given a courtesy call. 					
5) a.	National Response Center (NRC)	800-424-8802 or			
		202-267-2675			
b.	FL State Warning Point	800-320-0519			
	Reportable Quantity (RQ)				
	Oil = Sheen				
	Sulfuric Acid = 1,000 pounds (65 gallons)				
	Sodium Hydroxide = 1,000 pounds (57 gallons)				
		**GET CASE NUMBER(s) & NAME OF CONTACT(s) NRC: FL St. Warning Pt.:			
6) DEF Spill Advisor Bob Stafford Notes:					
Cell:	727-409-3340				
(b) (6)					
Office:	727-820-5538				
(b) (6)					
7) Terminals & Pipeline Supervisor Luis Gonzalez Notes:					
Cell:	727-409-9315				
(b)					
Office:	727-826-6276				

CONTACTS

PHMSA 000066428

CALL LOGGING

		Time Called (00:00)	Directly Contacted (X)	Left Message (X)	Paged (X)
8) Corporate Security - Florida Notes:					
888-287-3275					
9) Station Security Notes: William McAuliffe					
Cell: 727-742-8331					
(b) [REDACTED]					
Office: 727-827-6212					
10) Corporate Communications Notes: Sterling Ivey					
Hotline: 888-266-3853 (DUKE)					
Office: 727-820-4722					
11) Site Safety Specialist Notes: Sherry Carberry					
Cell: 727-551-5518					
(b) [REDACTED]					
Office: 727-242-6153					
12) Bartow Peakers Supervisor Luis Gonzales					
Cell: 727-409-9315					
13) Peakers Operations Staff					
Cell: Mike Havens 727-409-3828					
Cell: Jeff Tucker 727-409-5259					
14) Pinellas County Emergency Services Department Fire / Police / Medical Emergency 911 Hospital: Edward White Hospital					
15) Tampa Bay Regional Planning Council DRI, LEPC and IC&R Coordinator John Meyer 727-570-5151 ext. 29					

ADDITIONAL CONTACTS:

I. Pinellas Co. Dept. of Emergency Management
Phone: 727-464-3800

II. Pasco Co. Dept. of Emergency Management
Phone: 727-847-8137

III. FL Highway Patrol (State Police)
727-570-5010

IV. Pinellas County Sheriff
727-582-6200 or
727-582-5842 - Sgt. Haggan, Pinellas Co. Sheriff

V. U.S. Environmental Protection Agency
Region IV 404-562-8700

VI. FL Coast Guard 813-228-2189

VII. Pinellas County Risk Management
Beth Wininger, Director of Risk Management
 Cell: **727-580-0784**
 Office: **727-464-3559**
Marcus Erickson, Safety Director
 Cell: **727-647-0161**
 Office: **727-464-3565**

VIII. Bartow Control Room / Shift Supervisor
727-827-6169

IX. Bartow Front Office Receptionist
727-827-6174

X. Bartow Gate Guard Shack
727-827-6220

VII. MSDS & Chemical Emergency Info.
3E Co. 800-451-8346

VIII. Substation Maintenance
Mark Haase
 Cell: **727-460-2167**
(b) (6)
 Office: **727-893-9233**

X. Spill Recovery Contractor(s)
See page 12 of tab 2.

XI. Viking Boatworks (marina to the NW)
Erik Rikansrud
 Office **578-0618**
 Cell: **422-5633**

XIII. Pipeline Insurance

XL Insurance

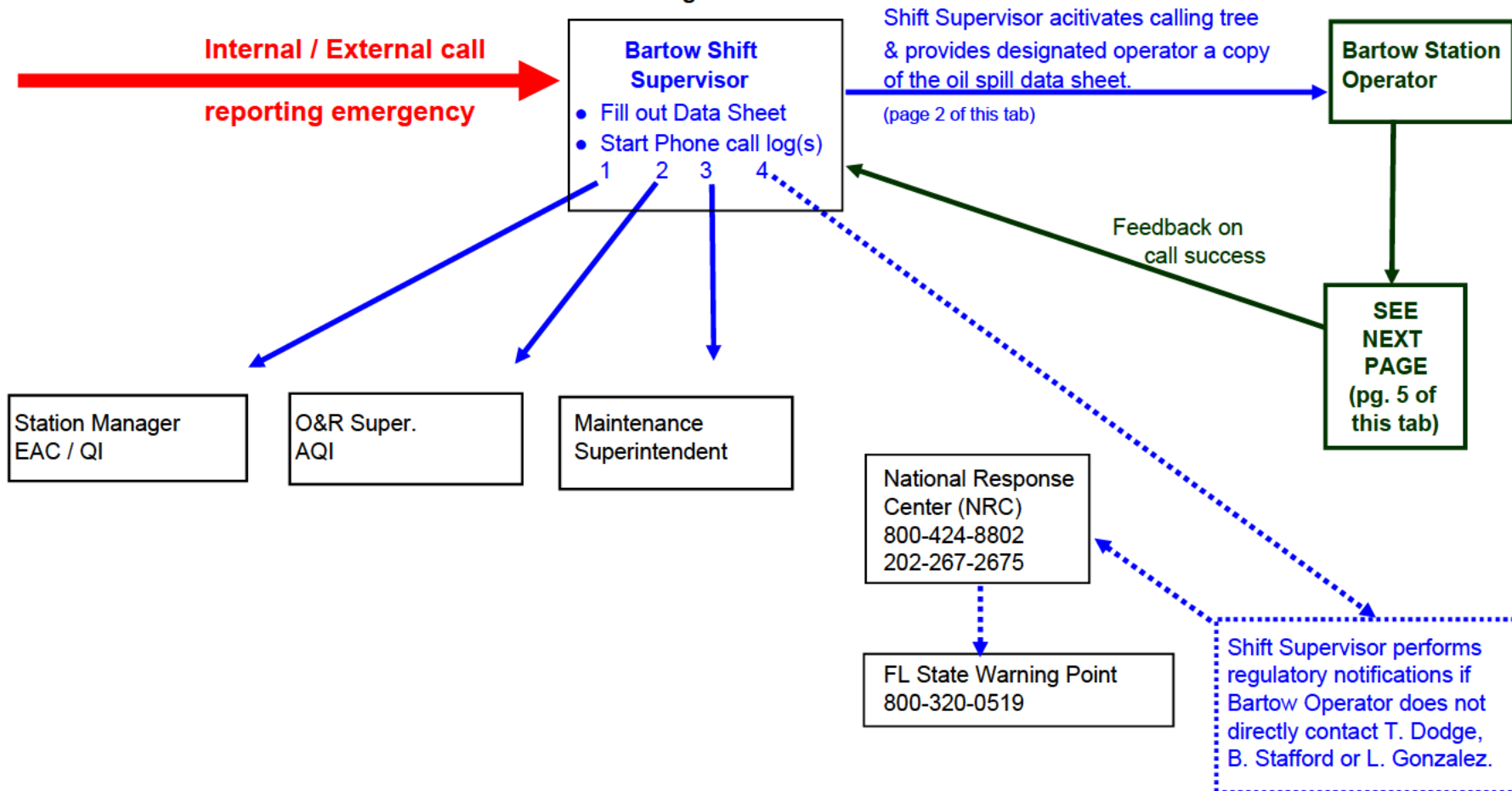
Policy # PEC001083902

Gary Little - (919) 546-6802

Ed Adams - (919) 546-6003

Notifications Calling Tree

Page 1 of 2



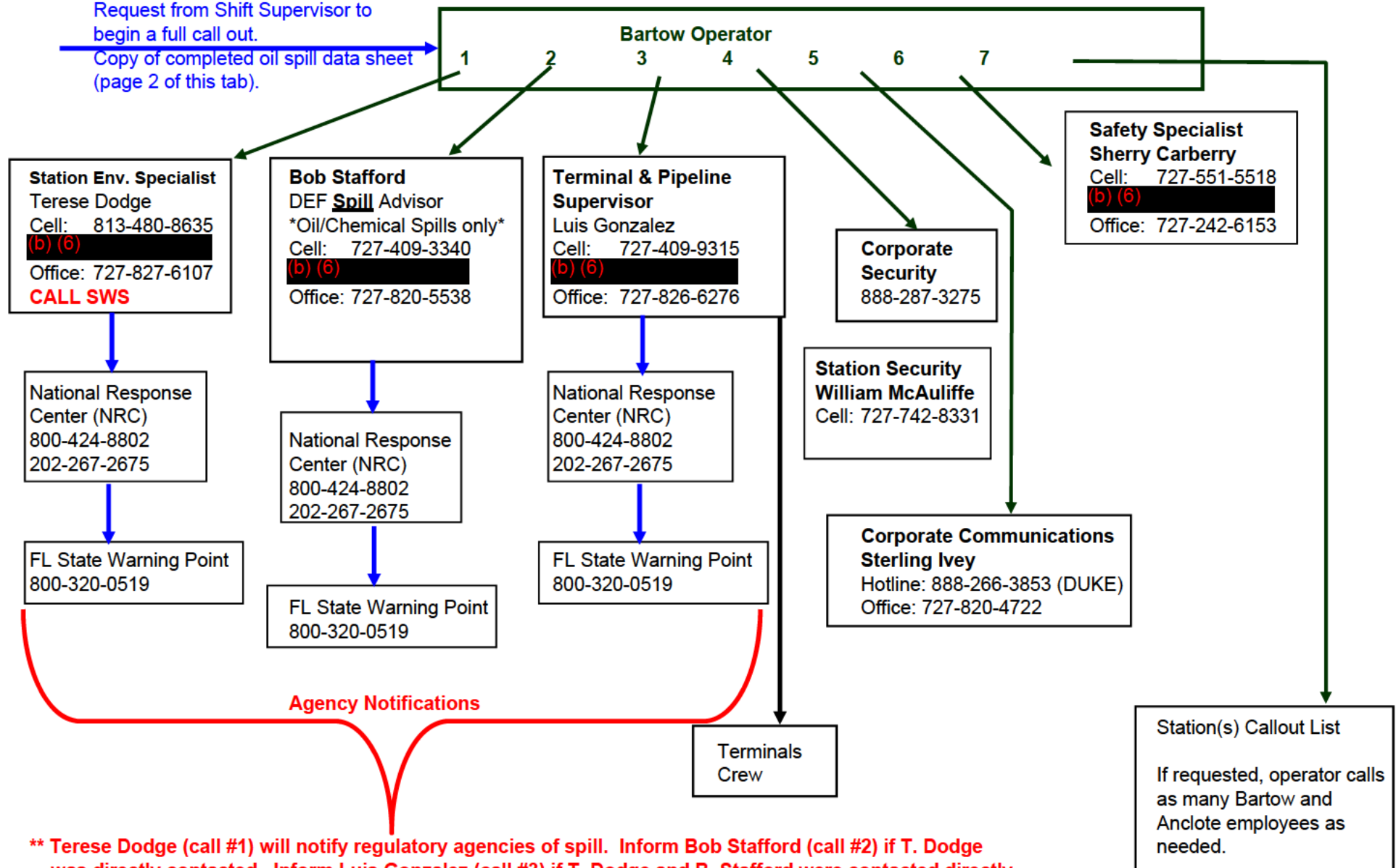
Notifications Calling Tree

Page 2 of 2

**** SEE NOTE AT PAGE BOTTOM**

Request from Shift Supervisor to
begin a full call out.

Copy of completed oil spill data sheet
(page 2 of this tab).



**** Terese Dodge (call #1) will notify regulatory agencies of spill. Inform Bob Stafford (call #2) if T. Dodge was directly contacted. Inform Luis Gonzalez (call #3) if T. Dodge and B. Stafford were contacted directly. If no one is contacted directly, inform BA SS so he may perform agency notifications.**

OIL SPILL ACTION GUIDELINES

BOOMING DIAGRAMS & INSTRUCTIONS – located after guidelines text in this tab.

Oil entering the storm drain system or discharging into the barge slip or discharge canal

Refer to the accompanying Stormwater System diagram and Boom location photo for guidance.

- **Stop the screen washwater pumps and the traveling screens.**
- **Block storm drains and boom storm drain discharge points.**
- **Control the station circulating water pumps**
 - a. Floating Oil
The flow to the intake should be controlled to aid recovery by holding floating Residual and #2 oil in the intake canal with water flow. If very large amounts of oil are against the intakes, go to one pump to avoid drawing oil through the plant.
 - b. Stopping flow to the discharge canal is normally desired to contain the oil that reaches that canal. Flow will be significantly reduced by going to one pump. Complete stoppage of the flow will take up to two hours.
 - c. SWS will deploy boom if it is needed.

Barge Slip

Station personnel deploy the pre-staged boom across the slip, then add additional layers of boom as necessary. These additional booms should be deployed across the slip at the same angle as the pre staged boom.

The downstream end of the boom should come ashore at a point where recovery equipment can be used.

Continued water circulation *could* be used to hold the oil in the slip if there is no danger of drawing oil into the plant.

Discharge Canal

- SWS will be contacted for boom deployment.
- Start oil removal operations using plant equipment.
- Call for underwater video and mapping contractor to locate sunken oil.
- Call for divers and vacuum trucks to remove sunken oil.

Oil discharged onto the ground in sufficient quantity to threaten the water

- Use plant earth moving equipment to create containment berms around the oil.
- Restrict flow into stormwater inlets using sand bags, soil and/or sorbent boom.

- Place containment boom around stormwater outfall, as necessary.
- Determine the need for a spill recovery contractor. (See the Contractor List under Tab #2, Oil Spill.)
- Call Environmental Health & Safety Services Section (EHSS) to assist with notifications. (See Tab #9, Notification Phone Lists)
- If the spill is #2 oil; use sorbent pads for recovery.

DISCHARGE SCENARIOS AND ACTION GUIDELINES FOR VARIOUS SITE SYSTEMS:

Marine Transfers

Failure of the loading arms, manifold or facility piping or over filling a tank during a transfer from a vessel

- Immediately shut down the vessel transfer pumps.
- Close all valves in the affected system
- The Emergency Action Coordinator (EAC) will initiate the control and recovery activities and will insure the required notifications are made.

Transfer pumps, piping or associated equipment fail during a tank to tank or tank to station transfer

- Immediately shut down the transfer pumps.
- Close all valves in the affected system
- The EAC will initiate the control and recovery activities and will insure the required notifications are made.

Spills during maintenance

- The EAC will initiate the control and recovery activities and will insure the required notifications are made.

Leaking storage tanks:**North terminal #2 oil Peaker Tank**

- The EAC will ask the peakers to go to full burn. The peakers will consume 9,500 barrels every 24 hours.
- Call for tank trucks. Bayboro, Anclote, Higgins, Intercession City, DeBary, Turner, Crystal River, and Suwannee have active #2 oil tanks.
- Transfer to any oil tank on site. Portable pumps will be necessary to transfer on site.
- Plug the leak.
- Begin recovery.

South terminal #2 oil Tanks

- The EAC will ask the combustion turbines to go to full burn.
- Call for tank trucks. Bayboro, Anclote, Higgins, Intercession City, DeBary, Turner, Crystal River, and Suwannee have active #2 oil tanks.
- Transfer to any oil tank on site. Portable pumps will be necessary to transfer on site.
- Plug the leak.
- Begin recovery.

**EMERGENCY ACTION COORDINATOR/
QUALIFIED INDIVIDUAL
(EAC/QI)**

INTRODUCTION

**EMERGENCY ACTION COORDINATOR/
QUALIFIED INDIVIDUAL
(EAC/QI)**

INTRODUCTION

The first person supervising action to contain and control an incident is the Emergency Action Coordinator/ Qualified Individual (EAC/QI), normally the Station Manager, Superintendent of Operations, Shift Supervisor or Environmental Specialist.

The EAC/QI is responsible for the overall management of all incident activities including the development of strategy and implementation of the recovery. She/he has the authority to make contracts, expend funds and communicate with government representatives. In a small incident, the EAC/QI might perform all control and operational duties. As the incident increases in complexity he/she will delegate responsibility up to members of the Incident Management Team (IMT) for oil spills or to City/County Emergency Management organization for hazardous materials releases.

Duties and Responsibilities:

The EAC/QI must make an assessment of the incident (e.g., magnitude, safety considerations, extent and type of assistance needed) and initiate control actions based upon the assessment. Refer to the checklist on the following page.

The Emergency Action Coordinator must accomplish the following tasks:

ASSIGN SITE SAFETY RESPONSIBILITIES

ESTABLISH A PERIMETER AND RESTRICT ACCESS

CHARACTERIZE SITE HAZARDS

- Identify pollutant
- Obtain Material Safety Data Sheet
- Conduct air monitoring (if appropriate)
- Identify physical and biological hazards i.e.: slips, trips, falls, confined spaces, noise, weather conditions, biological waste, poisonous insects, reptiles, and plants.

ESTABLISH CONTROL ZONES

- Exclusion Zone
- Contamination Reduction zone
- Support zone

ASSESS TRAINING REQUIREMENTS

- Check HAZWOPER qualifications.

SELECT PERSONAL PROTECTIVE EQUIPMENT (PPE)

ESTABLISH DECONTAMINATION STATION

ESTABLISH EMERGENCY MEDICAL PLAN

- The Emergency Medical Plan is almost always to call 911.

COMPLETE SITE SAFETY PLAN, SAFETY MEETING FORM, AND ACTION PLAN

The Emergency Action Plan on the following pages is designed to guide the EAC from **DISCOVERY** through the **SUSTAINED ACTIONS** portion of an incident.

MANAGE SPILL RESPONSE UNTIL RELIEVED

NOTE: Duke Energy Florida may not use dispersants in any form without prior written permission from the Florida Department of Environmental Protection or the US Coast Guard. Duke Energy Florida may spread dispersants if directed by the USCG or FDEP during a spill response.”

**EMERGENCY
ACTION
PLAN**

EMERGENCY ACTION COORDINATOR'S CHECKLIST

- ☐ Activate internal alarms.
- ☐ Identify the spilled material(s), the source, and amount.
- ☐ Ensure corporate and regulatory notifications are made.
- ☐ Establish a spill recovery team.
- ☐ Designate the Safety Observer.
- ☐ Identify possible health and environmental hazards.
- ☐ Identify the level of personal protection to be worn by all participating personnel.
- ☐ Conduct a safety meeting before starting the response.
(A safety meeting is not required for "practiced" evolutions such as incipient fire fighting and initial oil spill boom deployment.)
- ☐ Complete a Site Safety and Safety Meeting form.
- ☐ Establish a command post and notify responders of the location.
- ☐ Establish a Site Control and Decontamination plan.
- ☐ Establish a staging area(s) where recovery personnel will check-in before receiving their assignment and equipment.
- ☐ Isolate the spill area for safety, control, and decontamination.
- ☐ Develop initial strategic objectives for a plan of action.
- ☐ Call for internal and external personnel and resources as needed.
- ☐ Ensure that records and logs of all occurrences are maintained.
- ☐ Manage recovery until properly relieved.

ACTION PLAN				
LOCATION:		DATE:		TIME:
EMERGENCY ACTION COORDINATOR:				
SAFETY OBSERVER:				
ACTION TEAM LEADER:				
SAFETY MEETING				
DATE:		TIME:		PRESENTED BY:

INSERT NOTIFICATION / INFORMATION FORM HERE

INSERT MSDS HERE

ACTION PLAN NOTES

Objective: (i.e., Surround and contain oil at point "A" and recover. Block storm drains.)

Description of Work: (i.e., Use 200' of 18" boom, Boston Whaler, Floating drum skimmer.)

Site Layout: Using these Action Plan Notes layout the plan for protecting personnel and/or containing and recovering the product on the attached diagram. Show the location of the following as necessary.

- | | |
|---------------------|------------------------|
| • Command Post (CP) | • Staging Area (SA) |
| • Restricted Areas | • Decontamination Area |

Site Control: Minimizes the potential contamination of workers and the environment by preventing the spread of the contaminant. Personnel Protective Equipment (PPE), Work Zones, Buffer Zones, and Support Zones are the basic components of a site control program. Lay out the zones on the attached diagram.

Insert Diagram Here

Hazard Evaluation: After identifying the desired actions evaluate the area for:

PHYSICAL HAZARDS such as (Trenches, Utilities, Overhead Power Lines, Underground Pipes, Terrain, Heat, Weather, Etc.):

BIOLOGICAL HAZARDS such as (Snakes, Insects, Poisonous Plants, Etc.)

Personal Protective Equipment (PPE) / Safety Equipment:

After determining the desired actions and associated hazards, identify the necessary PPE and work area safety equipment.

PERSONAL PROTECTIVE EQUIPMENT

- ☐ Hard hat or hat for sun protection
- ☐ Rubber gloves
- ☐ Hearing protection
- ☐ Substantial shoes with booties or boots.
- ☐ Clothing for oil contact - Tyvec suit (with plastic liner), rain suit
- ☐ Clothing no oil contact - coveralls, long sleeve shirt, sun screen in place of long sleeve shirt
- ☐ Personal floatation devices for shore workers and boat crews

SAFETY EQUIPMENT

- ☐ First Aid kit
- ☐ Safety showers
- ☐ Eyewash
- ☐ Sanitary facilities adequate and clean
- ☐ Fire Extinguishers
- ☐ Warning signs
- ☐ Lifeline/Harness
- ☐ Lighting
- ☐ Communications

SAFETY MEETING AGENDA

REVIEW ACTION PLAN

REVIEW MSDS

IDENTIFY PHYSICAL HAZARDS

DICTATE PERSONNEL PROTECTIVE EQUIPMENT

REVIEW EMERGENCY PROCEDURES

OTHER

The MSDS sheets listed below were provided by 3E Company in November 2002 and may have been replaced by an updated version.

They should be used to initiate emergency actions.

As soon as possible, the EAC must acquire the most recent MSDS available from:

3E Company 800-451-8346 or the intranet from Tools & Resources then MSDS's.

MSDS Sheets are available for the following bulk chemicals:

- 1) Transformer Oil
- 2) Caustic, 50% Rayon Grade
- 3) No. 2 Fuel Oil
- 4) Propylene Glycol
- 5) Corrshield
- 6) Sodium hypochlorite
- 7) Mercaptan
- 8) Aqueous film-forming foam
- 9) Hydraulic oil

(b) (7)(F)



(b) (7)(F)



(b) (7)(F)



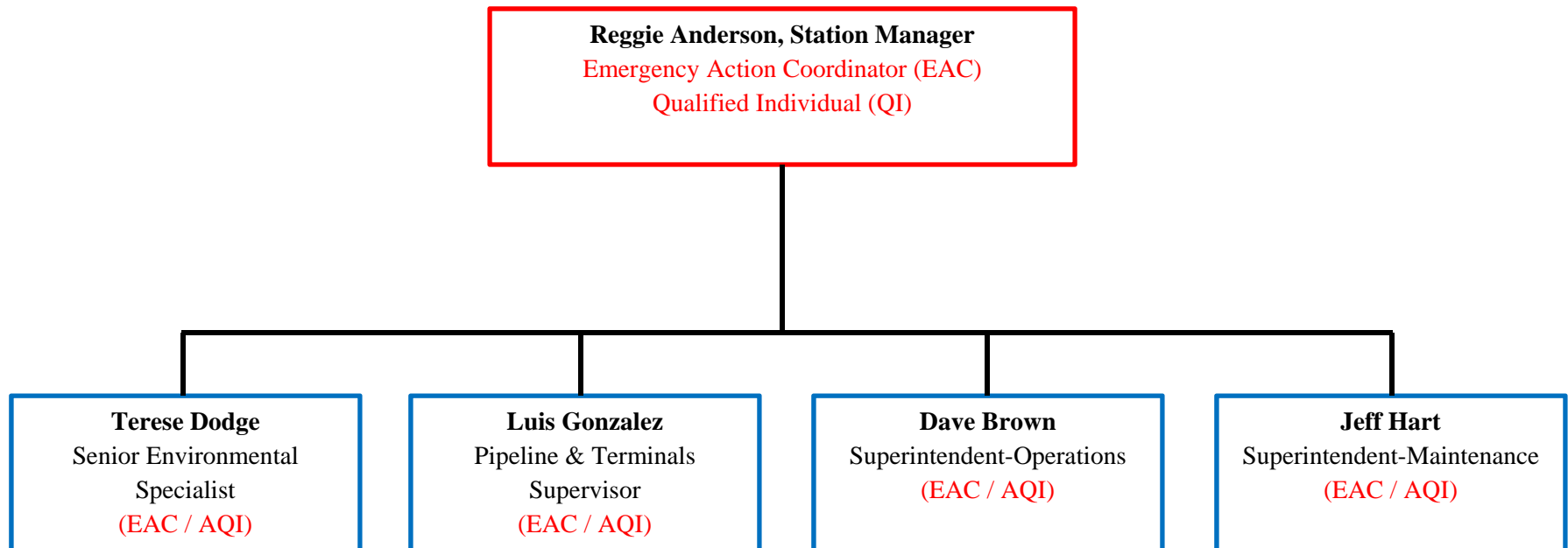
Attachment to Site Diagram. CT Units Transformer Locations

(b) (7)(F)



Bartow Station

Emergency Management Organization and Duties



**EMERGENCY MANAGEMENT GUIDE:
BARTOW STATION AND BARTOW/ANCLOTE PIPELINE**

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SECTION III: ANNEXES

ANNEX 1: RESPONSE MANAGEMENT STRUCTURE

ANNEX 2: OIL SPILL AND CHEMICAL RELEASE ACTION GUIDELINES

ANNEX 3: OIL SPILL RISK ASSESSMENT

ANNEX 4: PREPAREDNESS AND PREVENTION

ANNEX 5: TRAINING AND DRILLS

ANNEX 6: CROSS-REFERENCE AND COMPLIANCE DOCUMENTATION

ANNEX 1: RESPONSE MANAGEMENT STRUCTURE**A.1-1 Duke Energy Incident Management Philosophy**

DEF's incident mitigation strategy relies on a "delegation up" management structure. Most incidents will be small and handled at the site by site personnel. Each site-specific guide assigns the Station Manager or her/his designee as the facility's Emergency Action Coordinator/Qualified Individual (EAC/QI) with all of the authority required by regulation, and with full responsibility for control of an incident. The Station Manager, Production Manager and EH&S Specialist are typically given the roles of Emergency Action Coordinators/Alternate Qualified Individuals (EAC/AQI).

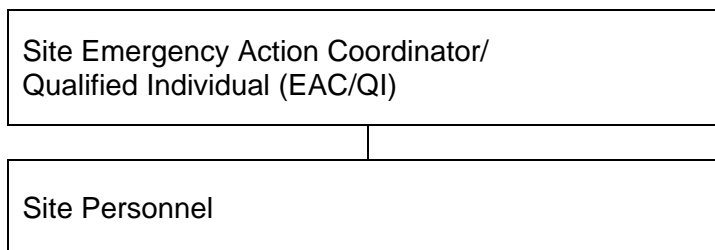
The first person supervising action to contain and control an incident is the facilities' EAC/QI. The EAC/QI is responsible for the overall management of all incident command activities including the development of strategy and implementation of the recovery.

In keeping with the "top down" ICS organization concept, the EAC/QI has the responsibility to perform all duties associated with the command and control of an incident until she/he appoints someone to support those positions.

As soon as a release is determined to continue beyond the capabilities of site personnel, the EAC/QI will activate the corporate Incident Management Team. At this point the EAC/QI becomes the Incident Coordinator (IC). It is also expected that at this time a recovery contractor will have been called to replace site personnel and an oil spill incident management group will have been called to augment/relieve members of the DEF Incident Management Team/Spill Management Team (IMT/SMT).

The following is an example of the DEF incident management philosophy:

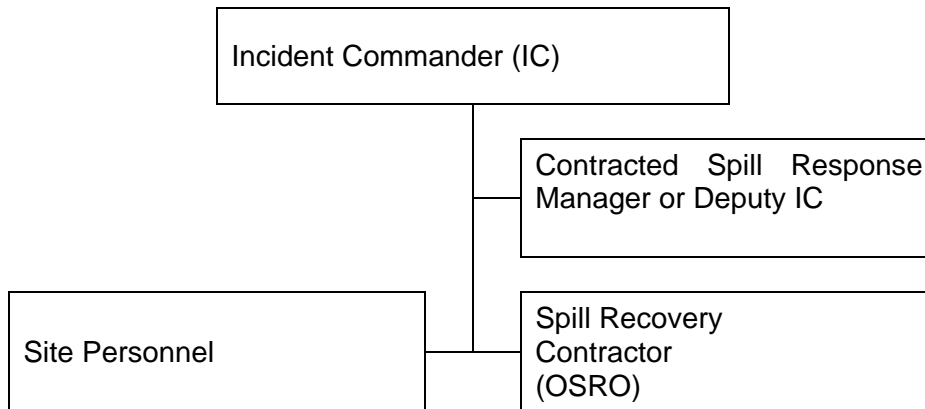
For most releases the entire emergency action and incident management organization will look like this:



Although the Incident Management Team (IMT) is designed for a catastrophic release, an EAC/QI may call for any person listed in the plan to assist her/him at any time.

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A more complex incident may require the following management team where the EAC/QI becomes the IC:



An incident that has progressed beyond the emergency stage to the project management stage may have the entire DEF IMT in attendance. It is important to note that as soon as possible most of the IMT/SMT members will be augmented or relieved by contracted oil spill management professionals. However, at no time will the mitigation efforts be without DEF oversight and involvement.

A.1-2 Duke Energy Incident Command System

DEF uses the Incident Command System (ICS) as a management protocol for responding to oil/chemical spills or other types of emergencies. Specifically, the DEF ICS can be used to manage the different types of emergencies addressed by this EMG as well as hurricanes, security threats and other types of natural or man-made emergencies.

The DEF ICS is comprised of a DEF Incident Commander, Staff and General Staff. The IC Staff includes a Safety Officer, Public Information Officer, Government Liaisons Officer and Security Officer. The IC and Staff are responsible for emergency management in support of the General Staff incident tactical response. General Staff includes five sections: Operations, Planning, Environmental, Logistics and Finance.

Figure A.1-1 (attached) shows the organizational chart for the DEF IC, Staff and General Staff. Table A.1-2 provides response objectives. Table A.1-2 provides position descriptions for the organizational chart.

Each department is responsible for communicating with the DEF Staff and General Staff, as necessary. All communication within the ICS follows a specific line of authority. The aforementioned functional areas will be activated based on the incident management needs.

A.1-3 Incident Management Team Guide

DEF has developed an Incident Management Team Guide document to establish an effective command and control system to assist or replace a station management organization during a catastrophic oil spill or chemical release from DEF facilities. It uses, as a guide, the National Incident Management System (NIMS) ICS which is the predominant public domain response management system in use nationwide. This system is consistent with the NCP.

The Incident Management Team Guide is included as part of the training and exercises that DEF conducts to satisfy PREP guidelines. It is included as part of this EMG by reference.

A.1-4 Objectives and Priorities for Response

DEF will in any response effort strive to meet the goals and objectives of a “Best Response”. The term “Best Response” means that a response organization will (1) effectively, efficiently, and safely respond to an oil spill, (2) minimize the consequences of pollution incidents, and (3) protect our national environmental and socioeconomic interests. The following priorities are part of a Best Response effort:

- ☐ Response objectives established and communicated.
- ☐ Accurate and timely information assembled on impacts to:
 - people;
 - property;
 - environment; and
 - economy.
- ☐ Positive media coverage of the response.
- ☐ Positive meetings with stakeholders.
- ☐ Economic impact to stakeholders minimized.
- ☐ Prompt and correct handling of damage claims.
- ☐ Stakeholders well informed of rights/issues.
- ☐ Response Management System employed.
- ☐ Sufficient and efficient resources brought to bear.
- ☐ Leadership and responsibility is clear (minimal duplication).
- ☐ No response worker deaths, injuries, or mishaps.
- ☐ No incident-related public injuries, illness, or deaths.
- ☐ Impacts on the surrounding economy minimized.

In addition to these overall priorities, response objectives have been developed that specifically apply to oil spill response. These objectives are provided in Table A.1-1.

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ATTACHMENT 1. ORGANIZATION CHART

Figure	Title
A.1-1	Organizational Chart for IMT/SMT

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BARTOW CC STATION**

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ATTACHMENT 2. INCIDENT MANAGEMENT TEAM

Table	Title
A.1-1	Oil Spill Response Objectives
A.1-2	ICS Positions

Table A.1-1. Typical Response Objectives**Ensure the Safety of Citizens and Response Personnel***Example Strategies:**Identify hazard(s) of the spilled product.**Establish site control (hot zone, warm zone, cold zone, and security).**Consider evacuations, as needed.**Establish facility access restrictions.**Monitor air in impacted areas.**Develop a site safety and health plan for response personnel.**Ensure safety briefings are conducted.***Control the Source of the Spill***Example Strategies:**Complete emergency shutdown.**Conduct firefighting.**Initiate temporary repairs.**Transfer product.***Manage a Coordinated Response Effort***Example Strategies:**Complete or confirm notifications.**Establish a unified command organization and facilities,
i.e. command post, staging areas, etc.**Ensure local officials are included in the response organization.**Initiate spill response Incident Action Plans (IAPs).**Mobilize and track response resources.**Account for personnel and equipment.**Complete documentation.**Evaluate planned response objectives vs. actual response (debrief).***Maximize the Protection of Environmentally Sensitive Areas***Example Strategies:**Implement pre-designated response strategies.**Identify resources at risk in the vicinity of the spill.**Track oil movement and develop spill trajectories.**Conduct visual assessments, i.e. overflights.**Develop/implement appropriate protection tactics.***Contain and Recover Spilled Material***Example Strategies:**Deploy oil containment boom at the source of the spill.**Deploy containment boom at appropriate collection areas.**Conduct open-water skimming with vessels.**Develop a waste management and disposal plan.*

Table A.1-1. Typical Response Objectives (continued)**Recover and Rehabilitate Injured Wildlife***Example Strategies:**Establish an oiled wildlife reporting hotline.**Conduct injured wildlife search and rescue operations.**Set up a primary care unit for injured wildlife.**Operate a wildlife rehabilitation center.**Initiate a citizen volunteer effort for oiled bird rehabilitation.***Remove Oil from Impacted Areas***Example Strategies:**Conduct appropriate shoreline cleanup efforts.**Clean oiled structures, i.e. piers, docks, etc.**Decontaminate oiled vessels.***Minimize Economic Impacts***Example Strategies:**Consider tourism, vessel movements, and local economic impacts throughout the response.**Protect public and private assets, as resources permit.**Establish a damage claims process.***Keep Stakeholders Informed of Response Activities***Example Strategies:**Provide a forum to obtain stakeholder input and concerns.**Provide stakeholders with details of response actions.**Identify stakeholder concerns and issues, and address as practical.**Provide elected officials with details of response actions.*

Table A.1-2. ICS Position Descriptions

Incident Commander (also included in Core Plan)
<p><u>Scope:</u></p>
<p>The Incident Commander for oil discharges is organized under the Unified Command Structure which includes the Federal On Scene Commander, the State On Scene Commander, and the DEF / Responsible Party.</p>
<p><u>Duties and Responsibilities:</u></p> <p>Unified Command is responsible for the overall management of the incident. It directs incident activities including the development and implementation of strategic decisions and approves the ordering and releasing of resources. The Unified Command may activate Deputy Incident Commanders to assist in carrying out Incident Command responsibilities.</p> <ul style="list-style-type: none"> • Assess the situation and / or obtain incident briefing from prior Incident Commander. • Determine incident objectives and strategies. • Establish the immediate priorities. • Establish an Incident Command Post. • Activate elements of the Incident Command System. • Brief Command Staff and Section Chiefs. • Ensure planning meetings are scheduled as required. • Approve and authorize the implementation of an Incident Action Plan. • Authorize release of information to news media. • Ensure liaison with appropriate governments is established. • Assure site safety plan is implemented. • Ensure incident funding is available. • Manage incident operations. • Seek appropriate legal counsel. • Approve the use of trainees, volunteers, and auxiliary personnel. • Initiate Natural Resource Damage Assessment (NRDA) and coordinate with NRDA team. • Ensure pollution reports are distributed. • Order the demobilization of the incident when appropriate.

Table A.1-2. ICS Position Descriptions (continued)

Primary/Alternate Qualified Individual (QI/AQI) (also included in Core Plan)
<p><u>Scope:</u></p> <p>Overall management responsibility for all activities related to the safe control, containment, cleanup, and mitigation for any major environmental incident, along with necessary restoration of company facilities.</p>
<p><u>Duties and Responsibilities¹:</u></p> <ul style="list-style-type: none"> • Identify the character, source, and extent of the release, and other items needed for notification.* • Assess the interaction of the spilled substance with water and/or other substances stored at the facility and notify response personnel at the scene of that assessment.* • Assess the possible hazards to human health and the environment due to the release, considering both the direct and indirect effects of the release.* • Activate internal alarms and hazard communication systems to notify all facility personnel.* • Notify all response personnel, as needed.* • Use authority to immediately assess company funding to initiate cleanup activities.* • Notify and provide the necessary information to the appropriate Federal, State and local authorities with designated response roles, including the National Response Center, SERC and LEPC.* • Activate all other Cleanup Response Team (CRT) members. • Meet and brief all CRT members upon arrival at station. • Ensure that maximum effective efforts are mounted for control, containment, cleanup, and mitigation of the oil spill or other environmental hazard.* • Utilize services of federal and state agencies, local police and fire departments, and others as appropriate. • Assess and implement (through the OSRO) prompt removal actions to contain and remove the substance released.* • Direct cleanup activities until properly relieved of this responsibility.* • Coordinate rescue and response actions as previously arranged with all response personnel.* • Ensure maximum protection of wetlands, water intakes, marine life, birds, property, shorelines, and other environmentally significant areas of concern. • Ensure prompt repair of facilities, restoration of normal operations, and protection of other affected operations or facilities. • Protect the safety of personnel, equipment, and property whether Company, public or private, as appropriate.

Table A.1-2. ICS Position Descriptions (continued)

Liaison Officer
<p><u>Scope:</u></p> <p>The Liaison Officer is a member of the Command Staff, and is the point of contact for personnel assigned to the incident from assisting or cooperating agencies.</p>
<p><u>Duties and Responsibilities:</u></p> <p>The Liaison Officer is responsible for the following:</p> <ul style="list-style-type: none"> • Obtain briefing from Incident Commander. • Provide a point of contact for assisting/cooperating Agency Representatives. • Identify agency representatives from each agency including communications link and location. • Participate in planning meetings and provide current resource status information. • Respond to requests from incident personnel for inter-organizational contacts. • Maintain Activity Log on ICS Form 214.

Table A.1-2. ICS Position Descriptions (continued)

Information Officer
<p><u>Scope:</u></p> <p>The Information Officer, a member of the Command Staff, is responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations.</p>
<p><u>Duties and Responsibilities:</u></p> <p>Only one Information Officer will be assigned for each incident, including incidents operating under the Unified Command Structure. The Information Officer may have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions.</p> <ul style="list-style-type: none"> • Obtain briefing from the Incident Commander. • Establish a single information center. (This may be called the Joint Info. Center (JIC)). • Obtain copies of current ICS-209 forms and pollution reports. • Prepare initial information summary as soon as possible after arrival. • Obtain approval for release of information from Incident Commander. • Attend meetings to update information releases. • Arrange for meetings between media and incident personnel. • Maintain Activity Log on ICS Form 214. • Arrange for meetings between media and incident personnel.

Table A.1-2. ICS Position Descriptions (continued)

Safety Officer
<p><u>Scope:</u></p> <p>The Safety Officer, a member of the Command Staff, will monitor and assess hazardous and unsafe situations.</p>
<p><u>Duties and Responsibilities:</u></p> <p>The Safety Officer is responsible for monitoring and assessing hazardous and unsafe situations and developing measures for assuring personnel safety. The Safety Officer will correct unsafe acts or conditions through regular line of authority, although the Safety Officer may exercise emergency authority to stop or prevent unsafe acts when immediate action is required.</p> <ul style="list-style-type: none"> • Obtain briefing from the Incident Commander. • Identify hazardous or unsafe situations associated with the incident. • Participate in planning meetings. • Review the Incident Action Plan for safety implications. • Review and approve the medical plan. • Maintain Activity Log on ICS Form 214.

Table A.1-2. ICS Position Descriptions (continued)

Legal Officer
<p><u>Scope:</u></p> <p>The Legal Officer, a member of the Command Staff, will monitor and assess the legal implications of the emergency incident.</p>
<p><u>Duties and Responsibilities:</u></p> <ul style="list-style-type: none"> • Monitor the incident. • Provide the Incident Coordinator with needed information to ensure full compliance with legal and regulatory requirements covering the incident. • Ensure that relevant information for the defense and / or settlement of future claims is gathered and preserved.

Table A.1-2. ICS Position Descriptions (continued)

Operations Section Chief
<p><u>Scope:</u></p> <p>The Operations Section Chief is a member of the General Staff and is responsible for the management of all operations directly applicable to the primary mission. The Operations Section Chief activates and supervises elements in accordance with the Incident Action Plan and directs its execution; activates and executes the Site Safety Plan; directs the preparation of unit operational plans, requests or releases resources, makes expedient changes to the Incident Action Plans as necessary, and report to the Incident Commander. The Operations Section Chief activates and supervises Units within the Operations. Such Units include On Land Unit Leader, On Water Unit Leader, and Air Operations Branch.</p>
<p><u>Duties and Responsibilities:</u></p> <p>The Operations Section Chief is responsible for the following:</p> <ul style="list-style-type: none"> • Obtain briefing and instructions from Incident Commander. • Develop operations portion of the Incident Action Plan. • Participate in planning meetings as required. • Brief and assign operations personnel in accordance with Incident Action Plan. • Supervise the execution of the Incident Action Plan for Operations. • Request resources needed to implement the Operation's tactics as part of the Incident Action Plan development (ICS Form 215). • Ensure safe tactical operations. • Make or approve expedient changes to the Incident Action Plan during the operational period as necessary. • Assemble and disassemble teams/task forces assigned to operations section. • Report information about special activities, and events to the Incident Commander, Planning Section Chief, and Information Officer and record these events on ICS Form 214.

Table A.1-2. ICS Position Descriptions (continued)

Planning Section Chief
<p><u>Scope:</u></p> <p>The Planning Section Chief is a member of the General Staff and is responsible for the collection, evaluation, dissemination and use of information about the development of the incident and status of resources. Information is needed to understand the current situation, predict probable course of incident events, and prepare alternative strategies for the incident. The Planning Section Chief activates and supervises Units within the Planning Section. Such Units include Resource Unit Leader, Situation Unit Leader, and Documentation Unit Leader.</p> <p><u>Duties and Responsibilities:</u></p> <p>The Planning Section Chief is responsible for the following:</p> <ul style="list-style-type: none"> • Obtain briefing and instructions from Incident Commander. • Activate Planning Section units. • Collect and process situation information about the incident. • Supervise the preparation of the Incident Action Plan. • Provide input to the Incident Command and Operations Section Chief in preparing the Incident Action Plan. • Participate in planning and other meetings as required. • Establish information requirements and reporting schedules for all ICS organizational elements for use in preparing the Incident Action Plan. • Assign Technical Specialists where needed. • Compile and display incident status summary information. • Provide status reports to appropriate requesters. • Prepare and distribute orders from Incident Command. • Instruct Planning Section Units in the distribution and routing of incident information. • Maintain section records. • Maintain Activity Log on ICS Form 214. • Prepare demobilization plan for all resources.

Table A.1-2. ICS Position Descriptions (continued)

Environmental Section Chief
<p><u>Scope:</u></p> <p>The Environmental Section Chief is responsible for managing the collection, evaluation, dissemination and use of information relative to all environmental matters. The Environmental Section Chief activates and supervises personnel and resources necessary to respond to the incident and supervises Units within this section. Such Units include Waste Management Advisor, Natural Resource Damage Assessment (NRDA) Unit Leader, and Wildlife Unit Leader.</p>
<p><u>Duties and Responsibilities:</u></p> <p>The Environmental Section Chief is responsible for the following:</p> <ul style="list-style-type: none"> • Coordinate all waste disposal needs. • Prepare Natural Resource Damage Assessment (NRDA). • Manage wildlife response and special needs. • Manage sensitive environmental issues such as protection of shorelines, mangroves, <i>etc.</i>

Table A.1-2. ICS Position Descriptions (continued)

Logistics Section Chief
<p><u>Scope:</u></p> <p>The Logistics Section Chief is a member of the General Staff and is responsible for providing facilities, services, and material in support of the incident. The Logistics Section Chief participates in the development and implementation of the Incident Action Plan and activates and supervises Units within the Logistics Section. Such Units include Medical, Communications, Security, Transportation, Facilities, Supplies, and Manpower.</p>
<p><u>Duties and Responsibilities:</u></p> <p>The Logistics Section Chief is responsible for the following:</p> <ul style="list-style-type: none"> • Obtain briefing and instructions from Incident Commander. • Plan organization of Logistics Section. • Notify Resources Unit of Logistics Section units that are activated. • Participate in preparation of Incident Action Plan. • Identify service and support requirements for planned and expected operations. • Coordinate and process requests for additional resources. • Review Incident Action Plan and estimate Section needs for next operational period. • Prepare service and support elements of the Incident Action Plan. • Estimate future service and support requirements. • Recommend release of unit resources in conformance with Demobilization Plan.

Table A.1-2. ICS Position Descriptions (continued)

Finance Section Chief
<p><u>Scope:</u></p> <p>The Finance Section Chief is a member of the General Staff and is responsible for all financial and cost analysis aspects of the incident and for supervising members of the Finance Section. The Finance Section Chief activates and supervises Units within the Finance Section. Such Units include Accounting Unit Leader, Claims/Insurance Unit Leader and Procurement Unit Leader.</p>
<p><u>Duties and Responsibilities:</u></p> <p>The Finance Section Chief is responsible for the following:</p> <ul style="list-style-type: none"> • Obtain briefing and instructions from Incident Commander. • Attend briefing with responsible agency to gather information. • Attend planning meeting to gather information on overall strategy. • Prepare work objectives and evaluate performance. • Inform members of the Unified Command when Section is fully operational. • Provide input to all planning sessions on financial and cost analysis matters. • Participate in all demobilization planning. • Insure that all obligation documents initiated at the incident are properly prepared and completed. • Brief agency administration personnel on all incident related business management issues needing attention and follow-up prior to leaving incident.

ATTACHMENT 3. SELECTED ICS FORMS

(See also forms in Tab 2 and Tab 11, Emergency Management Guide)

ANNEX 2: OIL AND CHEMICAL RELEASE ACTION GUIDELINES

This Annex contains the general and station-specific strategies for responding to oil spills that threaten waters of the U.S. and other sensitive environmental areas. It outlines response priorities, protection priorities and countermeasures based on discharge scenarios and other planning information consistent with the requirements for the Facility Response Plan (FRP).

Evidence of equipment deployment by the OSRO, and environmentally sensitive areas that are to be protected in the event of a major spill are included as Attachment 1 and Attachment 2, respectively.

OIL SPILL AND CHEMICAL RELEASE ACTION GUIDELINES
BARTOW STATION**TABLE OF CONTENTS**

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	Attachment 2—Information on Environmental Sensitivities	

¹ Under USCG, referred to as “Average, Most Probable”, Maximum Most Probable”.

**DUKE ENERGY FLORIDA
BARTOW CC STATION****EMERGENCY MANAGEMENT GUIDE
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The Bartow Station is regulated by both the USEPA (40 CFR 112.20) and the USCG (33 CFR 154.1010-1130) and therefore is considered a Complex Facility.

USEPA planning volumes for small, medium and worst-case discharges have been identified for planning purposes [40 CFR 112.20(h)(5)(i-iii)]. This non-transportation related facilities planning volumes are calculated in accordance with 40 CFR Part 112. They are (40 CFR 112.20):

- 2,100 gallons (50 barrels [bbls]) is the small discharge.
- 36,000 gallons (857 bbls) is the medium discharge.

(b) (7)(F)

Per 33 CFR 154.1035:

- Average, most probable discharge—2,100 gallons;
- Maximum, most probable discharge—50,400 gallons [1,200 bbls].

The total volume of all pipe associated with the transportation related portion of this complex is 453 barrels (19,026 gallons). This quantity was used to calculate the planning volumes for the transportation-related portion of this complex. The pipeline is currently inactive and has been “pigged” clean, however residual product may still be present.

Planning volumes and action guidelines for the Bartow/Anclote pipeline begin on page 23 of this section.

Per 33 CFR 154.1035, the procedures contained in EPA’s regulations on Oil Pollution Prevention at 40 CFR 112, Appendix C, Attachment C-III may be substituted for the distances listed in non-tidal and tidal waters. Therefore, the worst-case discharge calculated above satisfies the USCG requirement for a worse-case discharge calculation for resource planning purposes.

2.0 GENERAL PROTECTION STRATEGY PRIORITIES

The purpose of this part is to outline strategies for responding to spills that enter or threaten to enter the waters of the U.S. These waters are coastal and estuarine and contain different economic and ecological areas including numerous habitats and sanctuaries. "Sensitive areas" (including mangroves, beaches, etc.) make this area one of the more difficult to clean in the event of a catastrophe and one of the more challenging when planning for prevention and spill reaction.

The first step in any spill incident is to assess the situation and establish a set of priorities. The mitigation and recovery of a spill should then be designed using these priorities. At a minimum, the following must be identified:

2.1 RESPONSE PRIORITIES (These will always be the priorities):**(a) Protect human life and health:**

The first action is to protect human life and health. Ensure that **all** personnel involved, including the public, are never placed in danger and that proper steps are taken to ensure the health and well being of all parties.

(b) Minimize ecological and economic impacts:

Minimize ecological and economic impacts by controlling the source of the spill. Minimizing the amount of product released will aid in protecting human life, the environment, and economic interests.

2.2 PROTECTION PRIORITIES:

(a) What is not impacted? *What must be protected from any damage?*

(b) What is impacted? *What should be protected from further damage?*

2.3 COUNTERMEASURES:

Establish:

- (a) Collection areas,
- (b) Containment techniques,
- (c) Removal techniques,
- (d) Shoreline cleanup techniques/strategies.

To develop effective protection priorities and countermeasures, it must be remembered that every spill has unique characteristics. Consequently the following items must be considered whenever determining control and recovery actions:

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- (1) Type and amount of pollutant discharged,
- (2) Dissipation characteristics of pollutant,
- (3) Threat of fire or explosion,
- (4) On-scene weather conditions (*i.e.* winds, seas, and currents),
- (5) Geographical area,
- (6) Accessibility for response equipment,
- (7) Rate of spread to environmentally sensitive areas,
- (8) Potential for further discharge,
- (9) Equipment and manpower availability,
- (10) Resources at risk.

2.4 STRATEGIES FOR SENSITIVE AREAS

General

The following strategies are only recommendations and should not be strictly adhered to. Every spill is unique; therefore unique mitigation strategies must be developed for EAC/QI incident. Good planning and decision-making by the EAC/QI/AQI is the key to a successful response.

Five environmentally sensitive areas are encountered near this station.

1) Marshes, Tidal Flats, and Seagrass Beds

These are high sensitivity areas where cleanup is not generally recommended because heavy equipment and laborers may cause more damage than good. The best strategy is to protect the area from contamination using deflection boom.

Many factors must be considered, such as the season and wildlife in the area, before a cleanup will be attempted in one of these areas. In almost every case the Unified Command will make the decision to clean or not. If a cleanup is attempted, the most effective recovery method could be skimmers and sorbents positioned along the edge of the area to recover oil as it is flushed out by the tide. Accessing these recovery areas from land or by crossing shallows should be avoided. If deep-water access is unavailable any entry rout must be strictly controlled.

2) Sand Beaches

Recovery of oil from sandy beaches will depend on the amount and type of oil involved and the composition of the beach. If a sandy shoreline is heavily impacted bulldozers or road graders could be utilized. These machines are particularly effective on hard packed sand. Viscous oil should be moved to above the high tide line if it can't be immediately recovered. Light oils will sink into the sand requiring contaminated sand removal or other mitigation methods such as surf washing. Minor impacts could be managed with manual (shovels) cleanup. This method is least damaging to the beach. Nesting sea turtles and shore birds must be part of the protection priorities when cleaning beaches.

3) Bays and Inlets

Recovery actions on bays and inlets will be dictated by the tides. Systems must be established for both the ebb and flood of the tide. The first priority will be containment and the second will be recovery. Deflection boom should be used first to protect sensitive areas and second to guide oil into a natural collection point where the product can be skimmed, vacuumed or absorbed. An oil spill does not give the spiller the right to hinder navigation. Proper vessel advisories must be broadcast.

4) Offshore Areas

Open water recovery is generally the preferred method for oil spill recovery. Normally oil on the open water will have minimal impact on human health, the environment, and the economy. If oil cannot be corralled near shore it should be deflected away from sensitive areas to open water. This is true in Tampa Bay as well as the Gulf of Mexico. The use of dispersants may be beneficial in the Gulf of Mexico if the water is deep enough, and other factors are favorable. The proper use of dispersants can minimize shoreline impact. NOTE: Only the Federal On-Scene Coordinator (FOSC) can authorize the use of dispersants.

5) Islands

There are many island types within this area. Generally they are sand bars, mangrove hammocks, spoil islands, and hardened islands, islands that have been developed for human use. These island types, except for the hardened islands, should be considered wildlife habitats, until shown to be otherwise. Deflection booming around these islands is the first line of defense. Boom must be placed to protect an island through all tidal conditions.

6) Response Checklist

Table 2-1 provides a response checklist contained in the *Tampa Bay Area Contingency Plan*, 2006 Revision, which can be used as a tool to assess the adequacy of the response measures.

2.5 TERMINATION OF ACTIVITIES

"How Clean is Clean" will be determined by the Federal On Scene Coordinator (FOSC). In general a three tiered process will be used.

- First, federal, state, and, sometimes, county and local representatives, with appropriate technical support, will examine an impacted area.
- Second, the collected information will be evaluated to determine the present status of the area. If additional recovery is ordered, this process will be repeated.
- Third, a final check of the impacted area will be conducted. Appropriate local officials, who have the authority to make final recommendations to the FOSC, will be included.

These final recommendations will be presented to the FOSC who will make the final decision.

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Table 2-1. Tampa Bay Area Contingency Plan Response Checklist

1. Evaluate level of response needed for incident; use scenarios as general guide.
 - Most probable discharge
 - Maximum most probable discharge
 - Worst case discharge.
2. Evaluate if special circumstances exist requiring special actions.
 - Fire/explosion
 - Vessel grounding
 - Lightering operations
 - Salvage operations
 - Search and rescue
 - Public safety hazards
 - On scene weather conditions, use PORTS.
3. Implement support infrastructure based on level of response.
 - Determine response structure that will be used, and determine level of support needed to fill position in the structure.
 - Refer to Annex F of Area Contingency Plan for company listings.
 - Key federal, state, local and contractor personnel must be easily recognizable on scene and should wear their company's shirts, hats or vests appropriately marked to identify their personnel
4. Command center and command post access is limited to authorized personnel only. All personnel checking into a command post will sign in and out at the designated location and provide picture identification, credentials and the purpose of the visit. Distinctive colored identification tags will be issued to personnel allowing access to the command post(s).
5. Determine priority of and specific strategy for each area at risk.
 - Containment of source
 - Protection / deflection booming
 - Tear drop / cascading
 - Open water recovery
 - Recovery method.
6. Mobilization of personnel: Determine personnel needed for response, and identify source of personnel. Ensure personnel are properly trained, and health and safety issues are addressed. Ensure accurate accounting of personnel and resources (hours for personnel, vehicle, mileage, boats) and cost incurred.
 - Special Teams
 - Reserve augmentation
 - DRG Support
 - SONS augmentation
 - Corporate response team
 - OSRO response
 - USCG Air Operations.
7. Mobilization of equipment: Ensure adequate supply of transportation vehicles are available to transport personnel and equipment.
 - Type of equipment needed
 - Quantity
 - Location – staging area
 - Support needed
 - a. Boat for hauling and positioning boom
 - b. Aircraft support for transporting equipment.

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Table 2-1. Tampa Bay Area Contingency Plan Response Checklist (continued)

8. Logistics.
 - Logistics needed to support personnel
 - a. Food and water
 - b. Lodging
 - c. Additional clothing
 - d. Transportation.
 - Logistics needed to support response
 - a. Adequate communications – Ensure adequate supply and sufficient breadth of equipment to communicate to all parties. Electronic Communication equipment (Fax and computer) should be considered. Particular attention should be made to dedicated phone and fax lines between the Unified Command Center and Forward Command Center.
 - b. Command Center – Establish command center at or near the scene at the deployment area to support response. Local Sheriff or Emergency Management Mobile Command Center augmented with USCG and OSRO communications may supply rapid support. The command center must be of adequate size to support the anticipated number of personnel. A minimum of 3,000 square feet is required for the main Coast Guard command center, with partitioning for a 500 square feet responsible party office. A list of potential command center(s) sites are listed in the ACP, Appendix 9260.
 - Air support (overflights).
 - a. Coast Guard and Auxiliary
 - b. Other agencies
 - c. Private resources
 - d. Air Traffic Control Teams – In order to insure safety in the FAA designated restricted zone, contact USAF for on scene air traffic controllers.
9. Local Impacts
 - Impact on water intakes
 - a. Drinking water
 - b. Industrial
 - Transportation of fresh water supply.
10. Funding issues
 - OSC access to the fund
 - State access to the fund
 - Vendors – BOA policy
 - Responsible party funding process.
11. Volunteers
12. Fish, wildlife and habitat protection and mitigation of damage
13. Ensure coordination with natural resource damage assessment personnel
14. Develop and implement Site Safety Plan
15. Containment and Cleanup
 - Strategy
 - a. Shore considerations
 - b. Near shore considerations
 - c. Shoreline considerations
 - d. Inland considerations
 - e. Sensitive areas.
 - Staging areas

Table 2-1. Tampa Bay Area Contingency Plan Response Checklist (continued)

- Integrated cleanup system
 - a. Booming and containment
 - b. Recovery of spilled product and contaminated debris
 - c. Temporary storage (RCRA permit)
 - d. Transport of collected material for disposal (RCRA permit).
 - Monitor oil movement
 - a. Overflights
 - b. Computer modeling / trajectories
 - c. Continue to monitor proximity of spill to sensitive areas
 - Use of dispersants, other chemicals or other spill mitigating devices or substances (Refer to Annex G of ACP)
 - a. Pre-approved areas
 - b. RRT approval process
 - c. Forms
 - d. Field tests
 - e. Documentation of effectiveness.
 - Shoreline cleanup
 - Set aside areas for research purposes and countermeasure effectiveness determination
 - Monitor and refine cleanup strategies
 - Develop criteria / guidance for terminating cleanup. Input from:
 - a. Unified Command (OSC, State, Responsible party)
 - b. SSC and Federal, State and local scientific community including trustees
 - c. RRT
16. Removal and Waste Disposal
- Federal, State, and local laws / regulations
 - Volume of oil or hazardous substance for disposal
 - Identify disposal locations (onsite vs. offsite)
 - Obtain necessary permits
 - Secure transportation for product disposal
 - Outline disposal plan.
17. Secure Operations
- Unified Command coordination
 - Final survey
 - Clean / return equipment
 - a. When clean is "clean"
 - Survey/ replace equipment
 - Long term restoration of damaged areas
 - a. Consultation with appropriate Natural Resource Trustee.
18. Cost Recovery/ Documentation: To obtain information on Cost Recovery and Documentation refer to Appendix 9440 of ACP.

2.6 DISPOSAL PLAN

Oil and oil-contaminated materials that are not recoverable will be disposed of in an approved landfill, thermal treatment unit, or other facility approved to treat or dispose of the waste in accordance with applicable regulations.

In the event of a discharge, all recovered product and materials must be accounted for via reuse, decontamination, or disposal. Recovered product will be stored in drums or temporary storage tanks for reuse. The remaining materials, such as absorbents and contaminated soils will be stored separately in steel drums, roll-off containers, or bulk bags available through the responding spill response organizations. All will be clearly labeled and stored in the staged area adjacent to the spill location. Recovered fuel oil could be filtered and burned on-site or stored in available space in on-site tanks. The CT Units are capable of burning a considerable volume of fuel in a short period of time and could reduce the volume of recovered fuel oil.

Berms for the fuel oil tanks are available as needed on an emergency basis to temporarily store recovered oily materials. Oily dirt and debris will be protected from the weather by using plastic sheeting and tarps.

Prior to shipment, the wastes will be prepared for transportation in accordance with Department of Transportation (DOT) regulations on packaging (49 CFR 173, 178, and 179).

3.0 STATION SPECIFIC ENVIRONMENTAL SENSITIVITY and PROTECTION

The Bartow complex is located on reclaimed, dredge spoil, land with Old Tampa Bay to the north and east and the Weedon Island County Preserve on the west and south. The shoreline is forested with mangrove and sea grape, while the waters surrounding the facility are very popular recreational and fishing areas. A public bathing beach and marinas are located less than one mile north of the site. The upland area surrounding the station and tanks is flat, grass covered, sandy soil.

Water depth within 100 yards radius of the Bartow Station is from 1 to 3 feet. The station's cooling water discharge has cut a channel, up to eight feet deep, from the station north to the South Gandy Channel. Beyond the 100 yard radius are the Weedon Island Channel and the natural channel created by tidal action in Old Tampa Bay. These channels are subject to very high current and range from 15 to 50 feet deep. To the east and south are shallow flats bordering the station and the Weedon Island Preserve. These shallow areas average 3 feet in depth and generally extend to about 900 yards offshore. Tampa Bay can experience a tidal range of up to 4 feet with a median around 2 feet. Shorelines are heavily covered with mangroves or small muddy or sandy beaches.

Average air temperatures from May through October are between 75 and 83 degrees F. Average air temperatures from November through April are between 60 and 72 °F. Average water temperatures from May through October are between 78 and 86 °F. Average water temperatures from November through April are between 62 and 70 °F. The average annual wind speed is 8.3 mph and coming out of the East—Southeast June through November and from the Northwest to Southwest between December and May. Visibility is generally unlimited with the exception of morning fog during the winter months.

As discussed in the Oil Spill – Risk Assessment (Annex 3) section of this guide, the likelihood of oil leaking from any of the storage systems and reaching navigable water is small because of the control systems in place. Should all of the safeguards fail or severe weather damage the control systems the following potential scenarios and actions might occur.

A No. 2 fuel oil tank is located north of the station and two more are located on the south side of the slip. There is a possibility for oil from the north tank to enter the discharge canal or to flow overland into Old Tampa Bay to the north. The oil from the two No. 2 fuel oil tanks south of the slip could enter the waters of the slip and flow into Old Tampa Bay.

4.0 OIL RECOVERY GUIDELINES: SMALL and MEDIUM OIL SPILLS

Oil released from the yard piping or transfer pumps should remain inside the secondary containment. Oil escaping these containments will flow overland or through the storm drain system toward the slip, discharge canal or Old Tampa Bay.

The following subsections provide oil recovery guidelines for oil spills that occur outside of secondary containment areas that impact or threaten to impact water.

4.1 ACTUAL/POTENTIAL IMPACTS TO WATER**4.1.1 Oil discharged from any source into the water**

- Isolate the leak by closing valves, taking other defensive measures.
- Call OSRO if spill exceeds onsite recovery resources.
- Skilled support personnel assist OSRO as needed.

4.1.2 Oil discharged to the ground in sufficient quantity to threaten water

- Use available equipment from a safe distance to create containment berms around the oil.
- Use station earth moving equipment to create containment berms around the oil.
- Restrict flow into storm water inlets using sand bags, soil and/or sorbent boom.
- Place containment boom around storm water outfall, as necessary.
- Determine the need for a spill recovery contractor.
- Notify Environmental Services Section (ESS). (See Notification Phone Lists in the Emergency Action Guide (EAG) – Sec. II)
- If the spill is No. 2 oil, use sorbent pads for recovery.

4.1.3 Floating Oil discharged into the slip or discharge canal

- Shut the station circulating water pumps down.
 - (a) The flow in the intake can be sufficiently reduced within seconds by going to one pump. This will allow for safe cooling of the stations.
 - (b) Flow to the discharge will also be significantly reduced by going to one pump. Complete stoppage of the flow will take up to two hours.

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- Call the National Response Center (See Notification Phone Lists in EAG – Sec. II).
- Determine the need for a spill recovery contractor.
- Call EHSS for assistance (See Notification Phone Lists in EAG – Sec. II)
- Deploy boom (See diagrams under Oil Spill Action Guidelines in EAG – Sec. II)
 - a. Station personnel close the permanent boom. Depending on wind and quantity of oil, more layers may be needed. All additional boom should be at the same angle as the permanent boom.
 - b. Deploy the pre-staged boom across the discharge canal.
- Start oil removal operations using OSRO equipment.

4.2 DISCHARGES FROM VARIOUS SITE SYSTEMS

4.2.1 Marine Transfers

During oil transfer from vessels, the vessel's pumps are used. If a leak develops during a transfer, the following guidelines should be referred to:

Failure of the loading arms, manifold or facility piping or the over filling of a tank during a transfer from a vessel

- If the person in charge of the vessel discovers the leak or overflow, they are expected to stop the transfer and notify the person in charge of the facility.
- If the person in charge of the facility discovers the leak or overflow, they will notify the vessel person in charge who will stop the transfer pumps. If the vessel person cannot be immediately located, the facility person in charge will board the vessel and stop the transfer pumps using the vessels emergency shutdown system.
- If a person other than persons conducting the transfer discovers a leak, they should notify the station Control Room (dial 311 on station phones or 727-827-6230 on external phones) or the facility person in charge.
- The facility person will notify the EAC/QI (normally the Production Supervisor) via radio or intercom.
- The EAC/QI will initiate notifications and recovery actions.

4.2.2 Procedures to be followed if the transfer pumps, piping or associated equipment fail, or an overflow occurs during a tank to tank transfer

- The person discovering the leak or overflow will notify the Control Room.
- A fuel technician or station operator will immediately shut down the transfer pumps and close all valves in the system.
- The EAC will initiate spill response activity and make the required notifications.

4.2.3 Spills During Maintenance

- Small spills onto the ground from maintenance operations will be dug up, placed in drums, and disposed of through the Station Environmental Specialist.
- Contact EHSS for assistance, if needed (See Notification Phone Lists in EAG – Sec. II).

4.2.4 Leaking Storage Tanks

- All leaks should remain inside the berms. Ensure the containment drain valves are closed.
- If the oil threatens to escape the berms, see *Worst Case Scenario* under this tab.
- The person discovering a tank leak will notify to the Control Room.

If the leak is No. 2 oil from the Peaker Tank or Combustion Turbine Tanks

The EAC should consider:

- Asking that the peaker and/or combustion turbine units to come to full burn.
- Transfer to any tank on site. Portable pumps will be necessary to transfer on site.

5.0 OIL RECOVERY GUIDELINES: WORST-CASE DISCHARGE

(b) (7)(F)

which represents the catastrophic failure of Tank No. 6 (FDEP Tank No. 11). In addition to this section, see Section 5.0, *Group I Oils—Action Guidelines* for No. 2 oil.

A catastrophic release of oil from the Bartow Terminals could flow overland or through the storm drain system and enter Tampa Bay to the north, east or south of the station. Oil entering the storm drain system also may be discharged to the barge slip, to the bay south of the station, to the discharge canal and to Tampa Bay.

5.1 BOOMING STRATEGIES

Where and in what quantity oil enters the water is the primary determining factor for initial boom deployment. Weather considerations include the observations that Tampa Bay is tidal and the prevailing wind for eight months of the year is from the southeast. Winter wind directions vary considerably.

After first responder boom deployment in the immediate vicinity of the station by Duke Energy personnel, two initial boom configurations are contemplated using the entry point and the tide as guideline.

5.1.1 Initial Boom Configuration 1:

This strategy addresses oil entering the bay to the north of the station or oil entering the bay to the east of the station and moving on an incoming tide.

This boom deployment would be performed by contracted oil spill emergency specialists. A listing of oil spill contractors is located in EAG Sec. II – *Oil Spill Discover and Initial Actions*. See the red configuration on the *Worst Case Spill Boom Configuration* photo located under this tab.

- 1) GOAL 1: Protect the mangrove in Masters Bayou, the marinas in Snug Harbor, and the mangrove north of the Gandy Causeway by deflecting the oil onto the south side of the Gandy Causeway.
- 2) PROCEDURE:

Deploy booms:

- i) From the discharge canal to a point due north on the causeway.
- ii) From the east end of the slip due north to the causeway.
- iii) Across Masters Bayou at the entrance neck.
- iv) From the Gandy Causeway into Old Tampa Bay.

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3) ESTIMATED EQUIPMENT AND PERSONNEL REQUIREMENTS:
i) 18" Boom:

(1) Discharge to Gandy Causeway	3,200 feet (ft).
(2) East end to Gandy Causeway	3,600 ft.
(3) Masters Bayou	600 ft.
(4) Gandy into Old Tampa Bay	4,000 ft.

ii) Boats	2
iii) Tow Vehicles for boom trailers	1

(1) Persons needed:	
(2) Boats 2 x 3	6
(3) Boom delivery	2

1) GOAL 2: Stop further discharge to the bay. Recover oil from the Gandy Causeway.

2) PROCEDURE: As the boom is being deployed, mechanical digging equipment from the station should be:

- i) Used to stop any further discharge of oil from the dike.
- ii) Moved to the Gandy Causeway to dig weirs at the boom termination points.

3) ESTIMATED EQUIPMENT AND PERSONNEL REQUIREMENTS:

Machinery Operators and support needed:

(1) Bob Cat	1
(2) Front End Loader	1
(3) Back Hoe	1
(4) Support	3

5.1.2 Initial Boom Configuration 2:

This strategy addresses oil entering the bay to the east of the station or oil entering the bay to the north of the station and moving on an outgoing tide.

This boom deployment would be performed by contracted spill emergency specialists. A listing of oil spill contractors is located in EAG Sec. II – *Oil Spill Discover and Initial Actions*.

1) GOAL: Protect Weedon Island.

2) PROCEDURE: Deflect oil into the deep water and strong current of the Weedon Island ship channel. This will move oil away from Weedon Island and out into Tampa Bay. Oil in open water is less environmentally damaging than oil fouling a shoreline.

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- i) Deploy boom from the northeast corner of the property in a southeast direction.
- ii) Deploy boom from the south side of the slip out to Buoy 7 then following the buoy line to Buoy 1.

3) ESTIMATED EQUIPMENT AND PERSONNEL REQUIREMENTS:

i) Boom from northeast corner	3,300 ft.
ii) Boom to Buoy 7	7,000 ft.
iii) Boom to Buoy 1	8,000 ft.
iv) Boats	4
v) Persons	12

The boom might be reconfigured to direct the oil back to the slip on an incoming tide.

5.1.3 DEF-Deployed Boom Resource

The Bartow Station has deployed a permanent boom (skirt) of 24-inch height, 16 inches underwater, in the intake and discharge canals. Approximately 450 feet of boom is deployed in the waterfront intake side and approximately 325 feet is deployed in the discharge canal. The boom receives periodic inspections (including divers inspecting the submerged portions). The additional boom as called for in the booming strategy will be deployed by the contracted OSRO.

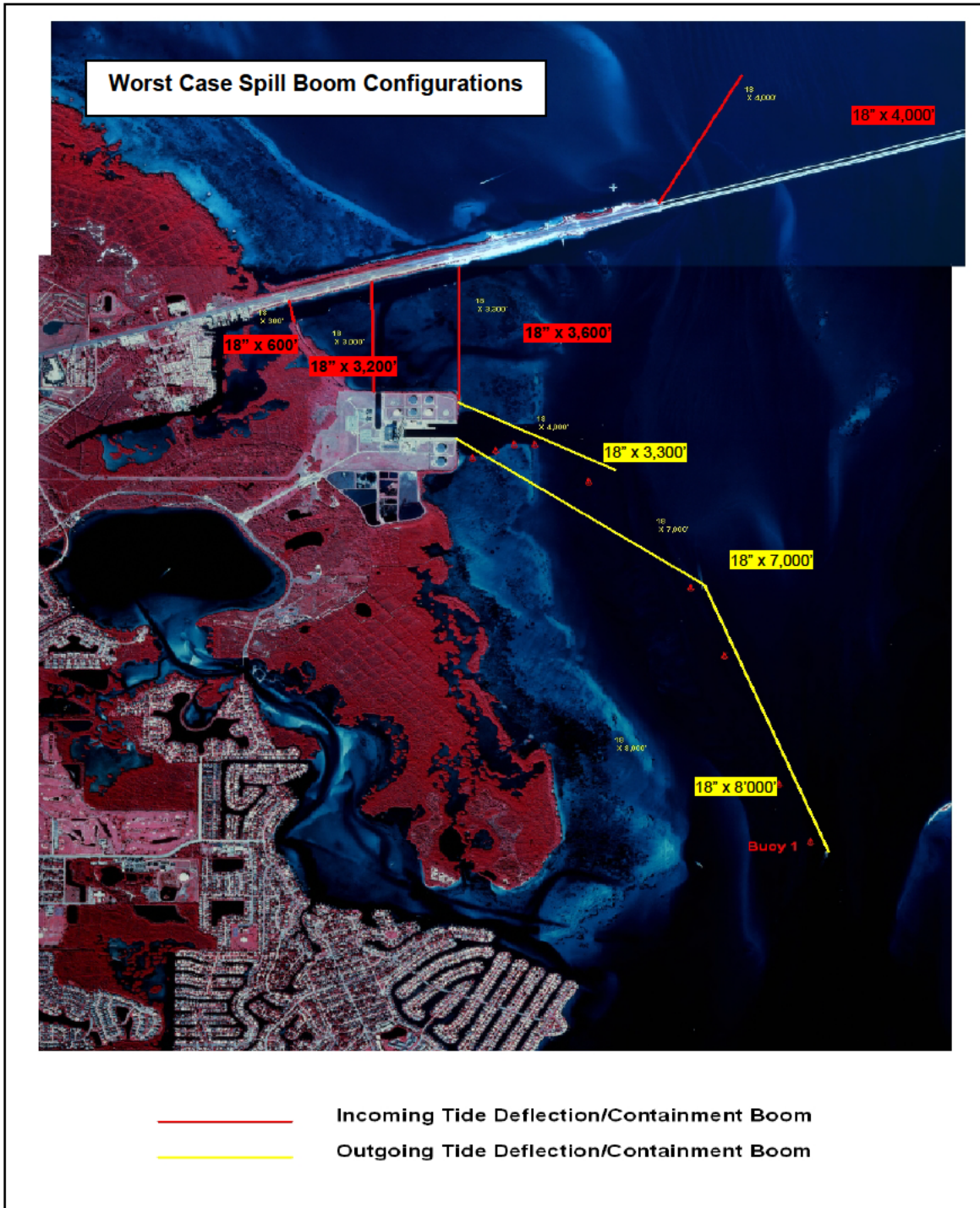
5.2 SENSITIVE ENVIRONMENTAL AREAS

Boom deployment configurations are depicted on the following page.

Areas to protect in the event of a spill into sensitive areas are identified in Attachment 2, *Environmental Sensitivities*.

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6.0 GROUP I OILS—ACTION GUIDELINES

6.1 BACKGROUND

The Group I oil used by Duke Energy is commonly known as light distillate oil. No. 2 fuel oil is lighter than water as is common with most distillate oils. On the API scale neutral buoyancy in fresh water is 10. Oil with an API gravity greater than 10 is lighter than fresh water while a gravity lower than 10 is heavier than fresh water. The API gravity of the Group I oil used by Duke Energy is greater than 35.

Studies have shown that there are no standard reactions when light distillate oil is spilled into water. One can expect the product to float and minimally dissolve upon contact with water. The oil is not expected to sink as it is lighter than water.

Light distillate oil is expected to float and minimally dissolve in the water column. Light distillate oils can spread rapidly and are not expected to create emulsions. The oil is also considered a non-persistent oil in the environment.

6.2 LOCAL CASE STUDY INVOLVING NO. 2 OIL

On February 12, 2009, a collision involving a fishing trawler and a barge near the Sunshine Skyway Bridge in Tampa Bay, Florida resulted in the release of an estimated 1,000 gallons of No. 2 diesel fuel. The leaking fishing vessel was surrounded in boom and the diesel fuel removed by a clean-up contractor. The majority of the fuel was contained in the boom and removed. The diesel fuel that did not evaporate or was not collected in the boom dissipated rapidly in the warm gulf water. The cleanup efforts were successful in removing the fuel and eliminating impacts to the shoreline. The area was re-opened to traffic the following day.

6.3 OPERATING PROCEDURES FOR GROUP I OIL

The most likely location for a release is into the vessel slip during a ship to shore transfer. The following operating procedures are followed:

- The transfer will be conducted in accordance with the existing operations manual.
- The slip will be closed with a floating boom in accordance with state law.
- DEF will require a spray shield around the manifold connection on the barge to remove the risk of a gasket failure spraying oil over the side.

The Bartow Station will have oil absorbent materials ready for deployment during Group I transfer operations.

6.4 RESPONSES TO GROUP I OIL SPILL

The OSRO under contract to DEF will provide response to a spill within 24 hours from the time of notification. The OSRO has met with DEF to discuss the issues involving Group I oil spills

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and provided input into the procedures in this EMG. The contractor emphasized that for all spills, especially Group I oils, the initial response to spills on water is containment; other initial measures are scenario-specific.

Responses to the average most probable, maximum most probable and worst case spills will be approached in the following manner:

6.4.1 Spill Response inside the slip

- Shut down the screens and the station circulating water pumps.
- Use floating boom to corral and move the floating oil to the northwest corner of the slip.
- Use station recovery equipment to start removing floating oil.
- Call contracted oil spill emergency responders

6.4.2 Spill response outside the slip (contracted oil spill emergency response)
In shallow water:

Boom will be used to hold the oil in the shallow water close to shore near the station. Teardrop containments could be formed in any shallow areas to hold oil for recovery with conventional skimmers and vacuum units. The boom would also be used to deflect the oil toward teardrop. 24" boom should be considered because it would sit on the bottom creating a surface to bottom seal. It would be held in place by driving rods into the bay bottom.

In deep water:

DEF would track the surface and with helicopters, remote operated cameras, oil water probes and bay knowledge. Stratified oil, if present, should travel in a manner similar to other particles in the water column such as silt. P.O.R.T.S spill trajectory models that can predict surface and subsurface plumes using real time information will be used.

Enough equipment, including specialized equipment and contractors to deal with these releases are listed in Section II—Oil Spill and Section III, Oil Spill Recovery Guidelines— Recovery Equipment.

6.4.3 OSRO Equipment

The OSRO has received certification as a Discharge Cleanup Organization from the Florida Department of Environmental Protection (FDEP), Bureau of Emergency Response. The contractor's personnel involved in equipment deployment operations are included in a comprehensive training program based on the OSHA requirements (29 CFR 1910.120. In accordance with 33 CFR 154.1035(b)(3)(vii), FRP regulated facilities must list the resource providers and specific resources necessary to provide aerial oil tracking capabilities required in this subpart. The oil tracking resources to be listed within this section must include the following:

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- (A) The identification of a resource provider and, (B) Type and location of aerial surveillance aircraft that are ensured available, through contract or other approved means, to meet the oil tracking requirements. The owner or operator of a facility handling Groups I through IV petroleum oil as a primary cargo must identify in the response plan, and ensure the availability through contract or other approved means, of response resources necessary to provide aerial oil tracking to support oil spill assessment and cleanup activities.

The facility contracts with SWS as its certified oil spill removal organization to satisfy the aforementioned USCG regulatory requirements. SWS maintains trained observers to assist with the tracking of oil spills where necessary and contracts with Tampa Helicopter Services to provide immediate aerial access to view and track oil spills.

In addition, the OSRO has a maintenance program in place to ensure the equipment is periodically inspected and maintained in good operating condition in accordance with the manufacturer's recommendations and best commercial practices. Evidence of the OSRO's ability to handle a worst-case discharge and equipment deployment is contained in Attachment 1.

6.4.4 Fire-Fighting Capabilities

DEF personnel are instructed to take the following actions if a fire is discovered:

- Activate the nearest fire alarm.
- Stop the fuel source by closing a valve, if safely possible.
- Shut the gas off at the gate.
- Attempt to extinguish the incipient fire or contain or isolate the fire to prevent its spread.

If the fire is beyond the incipient stage, local Fire Departments will be called to the scene. St. Petersburg Fire and Rescue North Shore Station 4 is located approximately six miles away from the Bartow Station and can arrive within 15 minutes of the call.

7.0 BARTOW/ANCLOTE PIPELINE ACTION GUIDELINES

The Bartow/Anclote Pipeline is a 33.3 mile x 14 inch pipeline between St. Petersburg and Holiday, Florida. The pipeline transports heated fuel oil from the Bartow Station to its Anclote station. The pipeline normally operates at 200 psig with a temperature of 140° F and maximum flow rate of 39 barrels-per-minute.

The following section provides the action guidelines for the pipeline. The actions focus on the sections of pipeline that cross waterways where the potential for widespread damage, and the need for planning, is generally the greatest. In general, the initial approach for pipeline releases will be to contain the release using booms, sandbags over culverts, and other containment techniques to minimize the oil spill impact area.

Upon arrival the OSRO will evaluate the site conditions and the threat to high consequence areas, then take specific actions based on this evaluation to minimize impacts to human and environmental receptors.

8.0 CHEMICAL RELEASE ACTION GUIDELINES

8.1 TYPES OF HAZARDOUS MATERIALS RELEASES

In accordance with the OSHA definitions of what constitutes an “Emergency”, hazardous material releases at this facility will be divided into two classifications for response: releases *Incidental to Operations*, and *Emergency*.

1. Releases Incidental to Operations are those incidents which occur during normal operations and are of a size that they have no potential for leaving the site, will not affect an unprotected person beyond the immediate vicinity, and can be controlled by station personnel wearing standard “operational” Personnel Protective Equipment (PPE). Generally these releases will occur during connection and disconnection, or from weeping valves or joints.

Examples

A leak of sulfuric acid occurs from a flange or fitting in piping from the bulk tank. A leak of this type can be controlled and stopped by the closing of the main supply valve at the tank. It represents a minimal risk to personnel and may only require evacuation of the immediate area.

While this example has inherent risks due to the hazardous nature of the materials, the quantity of the release would likely be minimal and station personnel could approach and conduct control procedures quickly and efficiently.

2. Emergency releases of Hazardous Materials which, by the nature, quantity, or location may not be readily controlled, or may present a high potential risk of overexposure to employees, or the public.

Releases of this nature would represent a high degree of risk of exposure or injury to station personnel. To control or stop the release will require the resources of the County Emergency Services Department or other outside resources and will require personnel safety measures such as, evacuation of station personnel and public areas surrounding the station property.

Example

A fracture in the sulfuric acid tank occurs in which acid is leaking into the secondary containment. Controlling a leak of this nature would require highly trained persons wearing specialized protective equipment. It would also necessitate the evacuation of part or all of the station and possibly public areas surrounding the station.

8.2 RELEASE GUIDELINES

The person discovering the discharge will leave the immediate area and contact the Production Supervisor, who is an Emergency Action Coordinator (EAC).

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BARTOW CC STATION****EMERGENCY MANAGEMENT GUIDE
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The EAC will assess the release for the most appropriate action using the checklist in Sustained Actions section of the Emergency Action Guide.

If a liquid chemical spill is not contained within a dike or sump area, an area of isolation will be established around the spill. This may take the form of a trench or dike, utilization of pumps/portable storage tanks, *etc.* to regain control. An isolation area in all directions is recommended to allow cleanup and repair as well as to prevent exposure. When any spill occurs, only those persons involved in overseeing or performing emergency operations will be allowed within the designated hazard area. If safely possible, that area will be roped or otherwise blocked off.

The Emergency Action Coordinator will determine whether or not the spill has exceeded a "reportable quantity", as established by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). If the spill exceeds a reportable quantity, the EAC will insure the National Response Center is notified. The RQ for acid is 1,000 gallons (approximately 65 gallons) and 1,000 lbs (approximately 57 gallons) for caustic (sodium hydroxide).

The Station Manager will conduct a post incident investigation to determine the cause of the spill and any corrective action necessary to prevent future incidents. A written incident report must be filed with the state and Local Emergency Planning Committee (LEPC) within fifteen days of the incident. These records will be maintained for 5 years.

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BARTOW CC STATION**

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ANNEX 2 ATTACHMENTS:

ATTACHMENT 1	EVIDENCE OF OSRO EQUIPMENT DEPLOYMENT
ATTACHMENT 2	ENVIRONMENTAL SENSITIVITIES

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BARTOW PLANT**

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DECEMBER 2008**

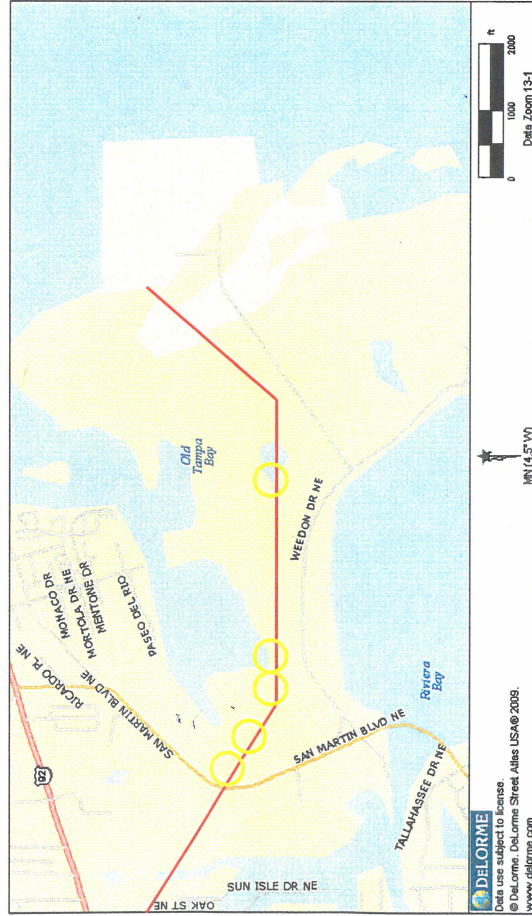
Pipeline Overview



Annex 2 Section 7.0: Bartow/Anclo Pipeline Action Guidelines

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Tidal Crossings—Bartow Plant Property

The western end of Masters Bayou is a tidal mangrove marsh that intrudes onto the P.L. Bartow plant property. The marsh is bisected by the power line and pipeline right of way, which isolates a section of the marsh from Masters Bayou. The right of way is dredge-and-fill lands approximately 0.5 feet above the high water mark. Five culverts pass through the right of way allowing tidal flow to the isolated section of the marsh. The pipeline is located in the northern quarter of the right of way adjacent to the main portion of Masters Bayou. Masters Bayou is cut with a web of abandoned mosquito control ditches that will provide limited access into the mangrove stand.

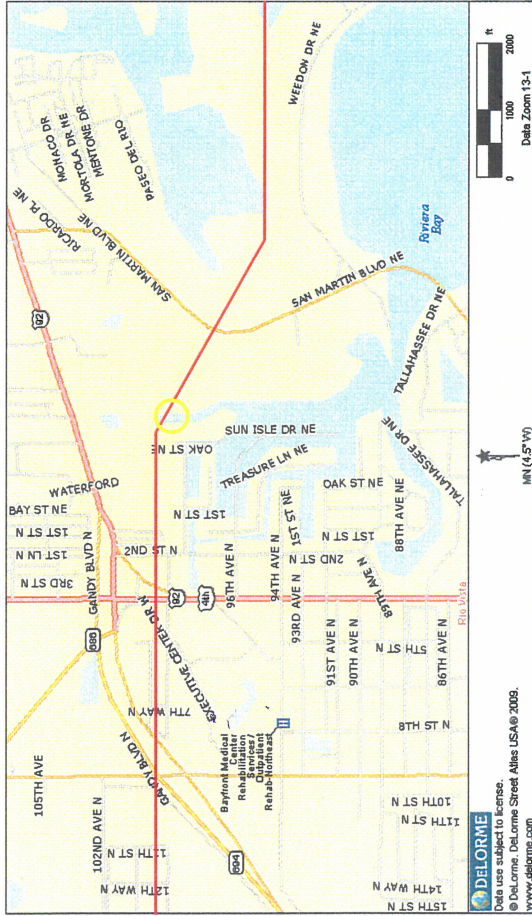
A spill near the culverts could be addressed in the following manner:

- On an incoming tide the culverts could be plugged. This would protect the isolated section of the mangrove marsh. If this area is already contaminated plugging could turn it into containment. Water jets could be used to move the oil to collection areas. Rope mop skimmers, drum skimmers, and vacuum trucks could be used to recover the oil.
- On an outgoing tide the mosquito ditches could be blocked with a boom to form containment. Skimmers and vacuum units would be used for recovery.



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R & J Canal

The R&J Canal is a dredged arm of Riviera Bay. The pipeline passes under the canal approximately one half mile after leaving the plant property. The canal is about 20 yards wide and 3 feet deep and is tidal.

A release into the canal could be approached in the following manner.

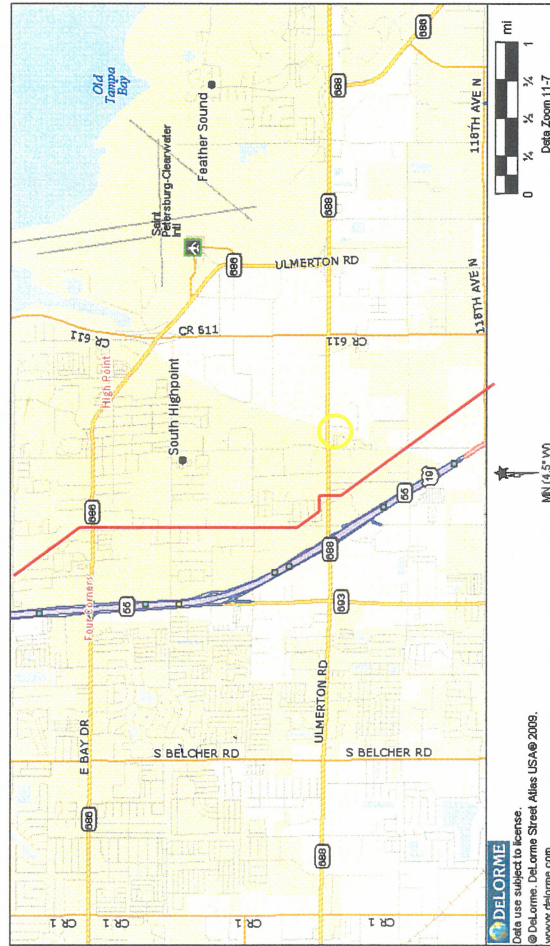
- On an incoming tide, several layers of boom would be stretched across the canal to hold the oil up in the dead end of the canal. Recovery would be accomplished with skimmers and vacuum units.
- On an outgoing tide defective boom will be placed to protect the mangrove on the eastern edge of the canal. The western edge is concrete sea wall, part of a canal system behind private residences. Deflection booming will be used to move oil into these canals. Recovery will be with skimmers and vacuum units.

Block the storm culverts at Executive Center Drive, one culvert on the east/west drive and one on the north/south drive. Then block the culvert at 4th. Street N. and boom the discharge into Riviera bay. The stream banks, even at the culverts, are vegetated with Brazilian pepper and mangrove and will require cutting to gain access to the water.



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Cross Bayou Canal

The pipeline passes under the canal next to the Ulmerton Road Bridge in St. Petersburg. The canal at this point is about 25 feet wide and has as much as 12 inches of water at the high tide and less than one inch at the low tide. The canal is a deep cut, about ten feet below grade, at the road crossing. The entire length of the canal, except at the crossing, is lined with mangrove which limits access to the water. Old Tampa Bay is approximately 1.25 miles to the north and Cross-Bayou and Lake Seminole are about 2.5 miles to the southwest.

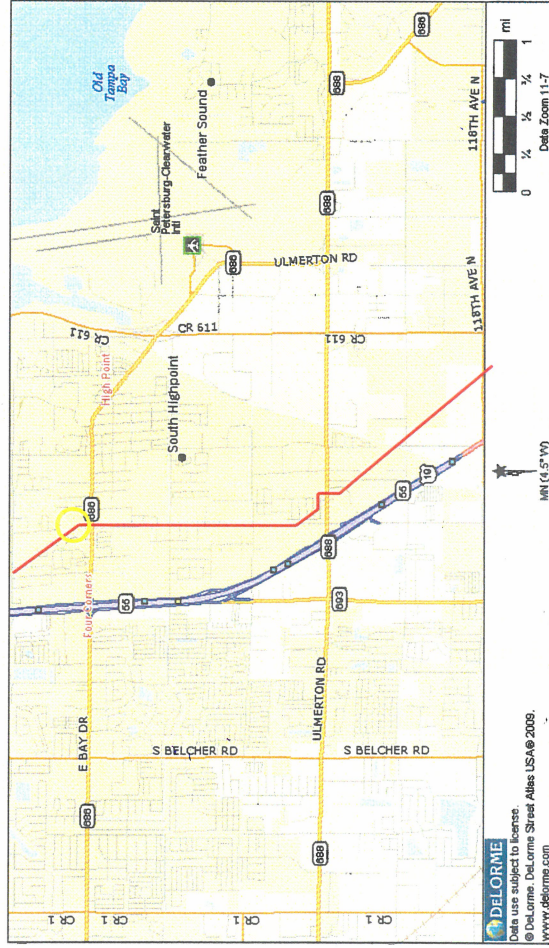
A release at the crossing could be approached in the following manner:

- On an incoming tide containment boom could be placed across the shoreline in multiple locations to contain the oil on the water. Immediately south of the Ulmerton Road Bridge there are two large storm drain ditches running parallel to the road and 90 degrees to the canal. These ditches are lined with concrete and will make an excellent containment. Oil will be deflected or pumped into these areas and then removed. Damming the entire canal at this point with power poles, sand bags, or earth could be accomplished and be very effective.
- On an outgoing tide a boom may be placed parallel to the shore for as long as possible to keep the oil on the water. A dam could be used with under surface pipes to relieve pressure. The dam would then hold the changing tide back. Almost all work will have to be accomplished from the creek bed because of the vegetation along the shore.
- Oil will be removed with OSRO-owned drum or rope mop skimmers and equipment.



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Long Branch Creek

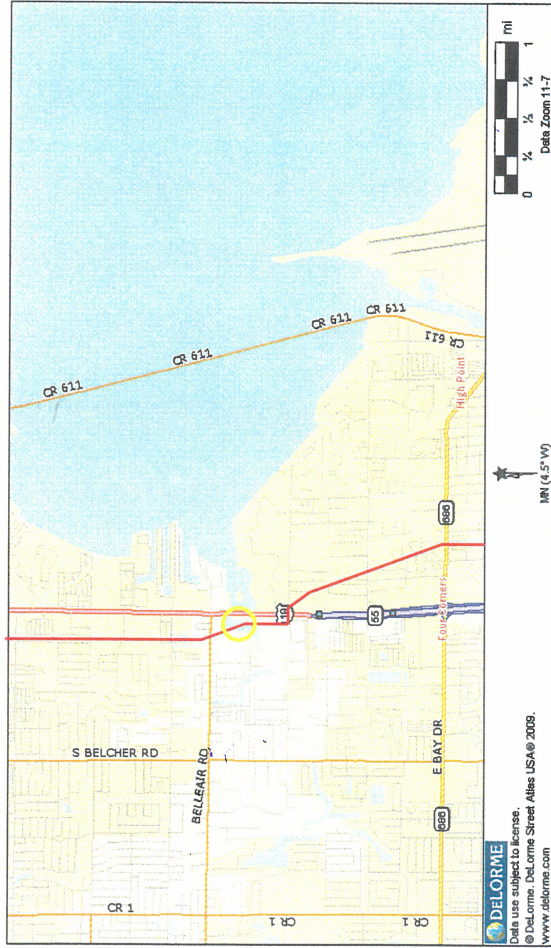
Long Branch Creek, at the pipeline crossing, is a fresh water creek flowing north. Seven eighths of a mile beyond the pipeline the creek discharges into Old Tampa Bay. The banks of the creek are heavily vegetated with brush and mangrove, even within the bounds of the many residential areas lining the banks.

- At the crossing the creek is in a cut about six feet below grade. The banks are kept clear within the right of way, which would allow an underflow dam to be constructed.
- One quarter mile down stream limited access may be gained at the Arbor Trace townhouses which are located on Whitney Road. The creek is fresh water and the banks are maintained in their natural state, with heavy vegetation.
- At the Whitney Road crossing, approximately 200 yards east of the Arbor Trace entrance; a recovery operation can be established using the road culvert as a control point. Several private residences on the east side of the creek and down stream of the Whitney Road crossing may provide access to the creek. Tidal influence and mangrove begin about one eighth mile downstream from the crossing.
- Three potential access points are available to the salt-water portion of the creek. The end of Longbrook is a private residence with a small dock on the creek. At the end of Sandelewood Place, off Longbrook, access may be possible after vegetation removal. At the end of Bough Avenue is a small, private, park with a cut through the mangrove and a small dock.
- Tampa Bay at the discharge point is less than one foot deep and fifty yards of mud flats are regularly exposed at low tide. Small boats launched at the Gulf Wind Marina on US 19 at Allen's Creek/Largo Inlet should be able to enter the creek with the high tide.



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Allen's Creek

The pipeline passes under the creek about 50 yards upstream of the US-19 highway bridge. The creek is lined with mangrove out to Tampa Bay and is bordered by mangrove and salt marsh up stream of the pipe. Allen Creek is too wide and deep to dam.

Shallow draft boats drawing no more than 24 inches of water can navigate the channel under the US-19 bridge on the half to high tide. (NOTE: The only available pass is marked on the bridge by a faded red mark near the center. All other passes are clogged with debris, which is under water at high tide.) The other alternative is using boats with oars or poles for propulsion. Persons could wade across the bayou at low tide; however the bottom seems to be mushy.

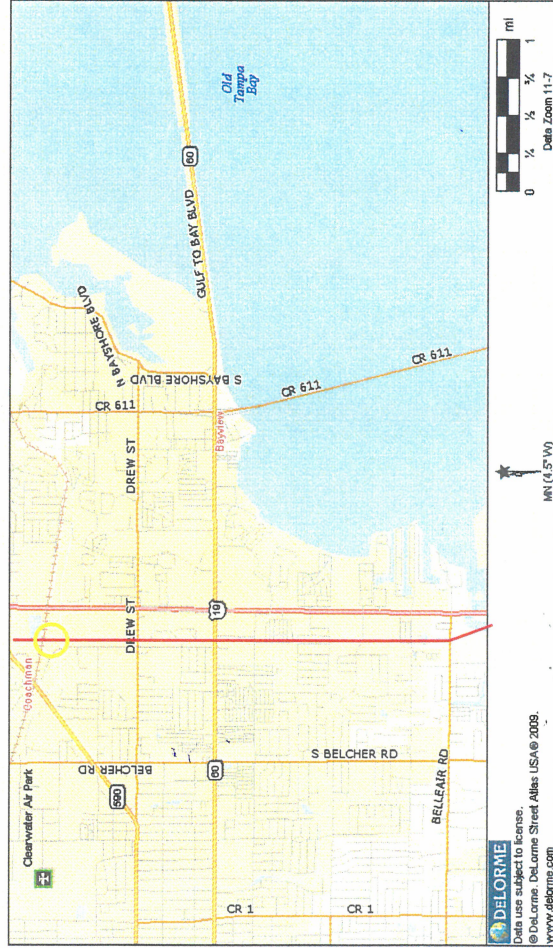
The only break in the mangrove from the bridge to the first turn upstream is at the right of way. Tidal currents are strong so a deflection boom will be used to move the oil to a recovery area. The Gulf Wind Marina is immediately down stream from the bridge. It may be suitable for a recovery site. There are no good recovery sites for one mile upstream of the pipeline. Every effort will be made to keep the oil near the break. If this fails, a deflection boom will be used to channel the oil downstream with the tide to a collection point.

- Spills on the incoming and outgoing tides will be controlled by deploying a boom parallel to the shoreline in order to keep the oil on the water. There is cleared and paved land near the crossing where oil could be channeled and collected.



PROGRESS ENERGY FLORIDA BARTOW PLANT

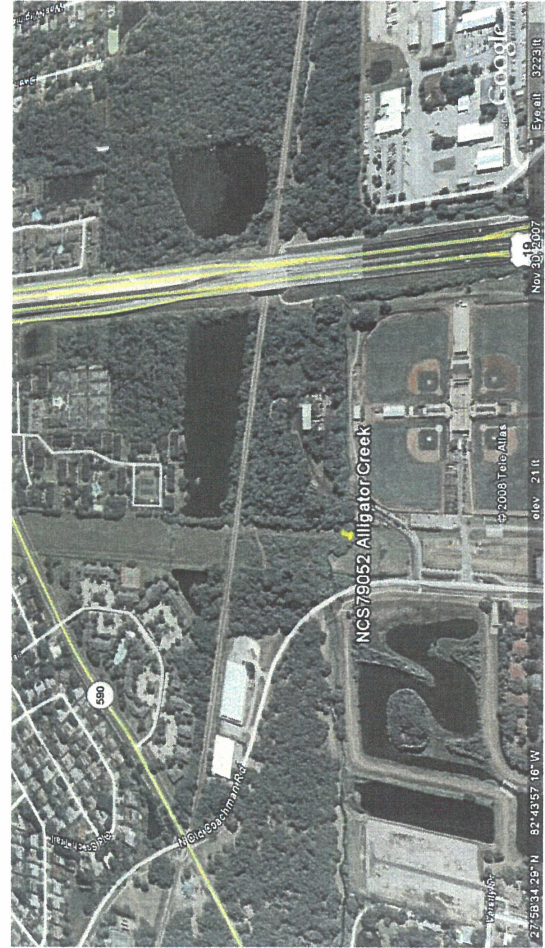
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Alligator Creek

Alligator Creek at the point of the pipeline crossing is a fresh water stream which eventually flows into Alligator Lake which is an arm of Old Tampa Bay. The creek flows across the Progress Energy power line and pipeline right of way then across the northern edge of the Carpenter Field Spring Training site. The creek then passes under US 19 and into Cliff Stephen's Park. One mile beyond the park it flows into Alligator Lake.

The Progress Energy right-of-way provides unobstructed access to the creek, which is approximately three feet wide and six inches deep. The entire distance from the right of way to about 50 yards before the US 19 culvert is cleared and maintained land which offers an excellent staging and recovery site. Immediately beyond US 19 the creek is in a deep ditch which could be blocked with an underflow dam. Cliff Stephen's Park is a series of small lakes that could be blocked with boom to create several thousands of barrels of containment. Beyond the park the creek flows into Alligator Lake which could also be blocked with boom to prevent any oil from escaping into Tampa Bay.



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Tidal Culvert, Anclote River Crossing (see figures next page)

This concrete box culvert is a pass through that allows water to flow into a marsh that was isolated by the construction of US 19. The pipeline passes under the culvert flow on the river side of the culvert. The culvert opening is four feet by six feet.

- Close valves 9a and 10a.
- Block the culvert, to remove the problem of tidal current, using plywood and sandbags.
- Place boom to hold oil in the canal that has formed on the river side of the culvert.
- Use boom to hold any oil that may have passed through into the marsh in open water.
- Recover oil using vacuum trucks or skimming machines.

The pipe passes under the Anclote River on the west side of the US-19 highway bridge. The river at this point is tidal, about 50 yards wide and is several feet deep. Areas up and downstream is salt marsh with several branch channels and one main channel. The main channel has the most current and is the widest.

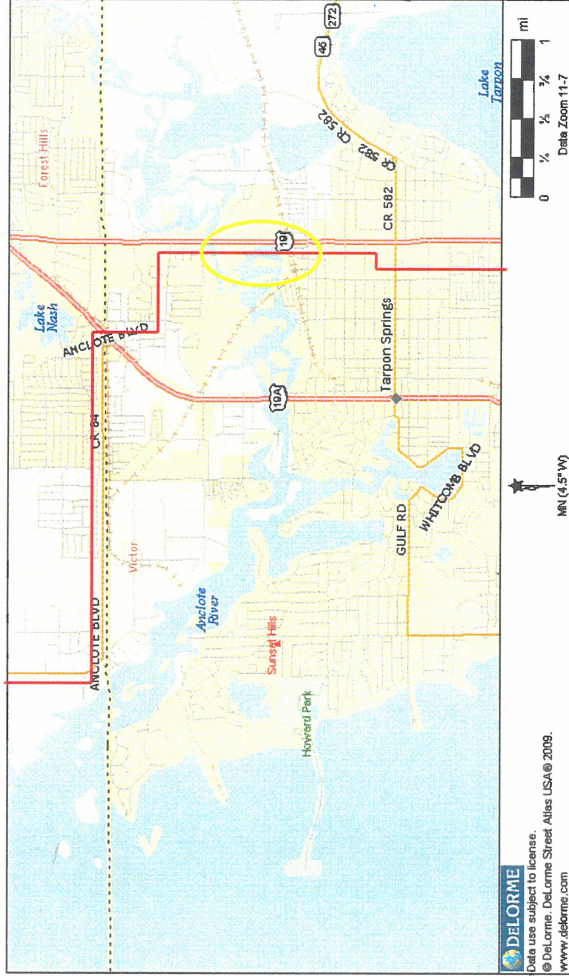
- Close valves 9a and 10a.
- Boom could be placed parallel to the shoreline to keep the oil in the channel.
- The first recovery site down stream of the crossing is on the south side of the river at the Progress Energy power line crossing.

Driving Directions: From 19 south of the river take the first turn west onto Live Oak, then north on Deston, then east on River Village Drive. River Village is a mobile home park.

- The Progress Energy right of way is about 300 feet wide and provides a sandy beach for emergency launching of boats and recovery of the oil. To the east of the beach is a 200-ft. seawall with an excellent staging area consisting of level ground with a grass cover behind it. Between the paved road and the beach is mostly sand, so four-wheel drive vehicles may be needed to get equipment to the beach and across the right of way to the staging area behind the seawall.
- Oil could be deflected out of the main channel current and into the small bay in front of and east of the seawall. This bay could be surrounded with boom and used as containment. The oil will then be drawn from the containment at the most convenient point. It would require about 5,000 feet of boom to protect the shoreline from the bridge to the right of way and another 500 feet to create the containment. If the shoreline is already contaminated, deflection booms should be set near the staging area to collect the oil on the outgoing and incoming tides. About 1,000 feet of boom could accomplish this task.
- The area upstream of the bridge is salt marsh with poor access. The service road provides a solid access and staging area. Ten yards to the east of the bridge on the north side is a parking lot that will provide an excellent staging and recovery area but not a good deployment site. Further east is a large tidal marsh with very poor access. Responders may use the tide, water pumps, and prop washing to move the oil to the bridge area containment. Less than 1,000 feet of boom would be needed to create the containment and deflection site. 5,000 feet of boom would be needed to establish shore protection east of the containment.

**PROGRESS ENERGY FLORIDA
BARTOW PLANT**

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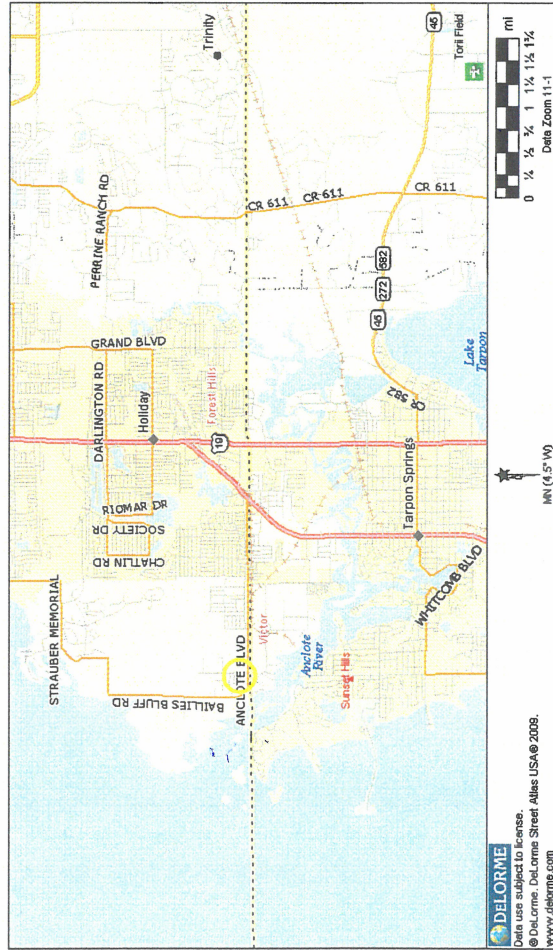
PROGRESS ENERGY FLORIDA BARTOW PLANT

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Anclothe Village Marina's Drainage Ditch

The pipe passes under the drainage ditch, which is approximately ten feet wide and contains two feet of water at high tide and six inches at the low tide. The entire ditch is about 250 yards long and it discharges directly into the Anclothe River.

- Placing boom at the mouth of the ditch and adding layers moving up stream could control a release into the ditch. The entire ditch could easily be blocked with an underflow dam that could be constructed using local materials and plant equipment. Oil recovery could be accomplished using vacuum trucks and OSRO-owned recovery equipment.



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AUGUST 2013**

ATTACHMENT 1. EVIDENCE OF OSRO EQUIPMENT DEPLOYMENT

8-Sep

Equipment Inventory Specifications - Service Center

Equipment Inventory Specifications - Service Center

**DUKE ENERGY FLORIDA
BARTOW CC STATION**

**EMERGENCY MANAGEMENT GUIDE
AUGUST 2013**

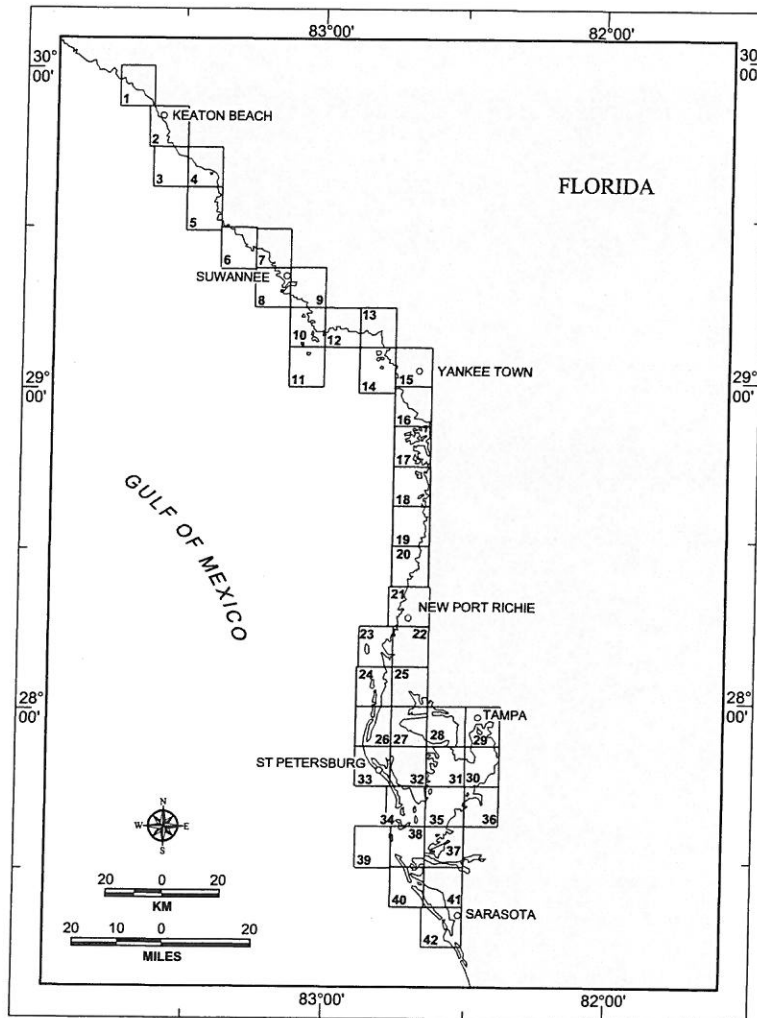
ATTACHMENT 2. ENVIRONMENTAL SENSITIVITIES

Sensitivity of Coastal Environments and Wildlife to Spilled Oil

WEST PENINSULAR FLORIDA

Volume 1

ATLAS



Prepared for:



DEPARTMENT of
ENVIRONMENTAL PROTECTION
Tallahassee, Florida

Prepared by:



RESEARCH PLANNING, INC.
Environmental Technology Division
Columbia, South Carolina

May 1996

WEST PENINSULAR FLORIDA 1

SHORELINE HABITAT RANKINGS

- 1 EXPOSED VERTICAL ROCKY SHORES
EXPOSED SEAWALLS
- 2 EXPOSED ROCKY PLATFORMS
- 3 FINE-GRAINED SAND BEACHES
- 4 COARSE-GRAINED SAND BEACHES
- 5 MIXED SAND AND GRAVEL (SHELL) BEACHES/FILL
- 6 GRAVEL BEACHES/RIPRAP
- 7 EXPOSED TIDAL FLATS
- 8 SHELTERED ROCKY SHORES/SEAWALLS/
VEGETATED BANKS, SOLID MAN-MADE STRUCTURES
- 9 SHELTERED TIDAL FLATS
- 10A EXPOSED MARSHES AND/OR MANGROVES
- 10E SHELTERED MARSHES AND/OR MANGROVES

HUMAN-USE FEATURES

- | | |
|--------------------------------|--------------------|
| AIRPORT | MARINE SANCTUARY |
| AQUACULTURE | NATIONAL PARK |
| ARCHAEOLOGICAL/HISTORICAL SITE | STATE PARK |
| BOAT RAMP | RECREATIONAL BEACH |
| COAST GUARD | WATER INTAKE |
| DIVE SITE | WILDLIFE REFUGE |
| MARINA | |

ID NUMBER

----- STATE BOUNDARY

----- AQUACULTURE BOUNDARY
----- MANAGED AREA

SENSITIVE BIOLOGICAL RESOURCES

- | | | |
|--------------------|---------------------------------|-----------------------|
| BIRDS | MARINE MAMMALS | SHELLFISH |
| DIVING BIRDS | MANATEES | BIVALVES |
| GULLS AND TERNS | TERRESTRIAL MAMMALS | CRABS |
| PASSERINE BIRDS | SMALL MAMMALS | LOBSTERS |
| PELAGIC BIRDS | CONCENTRATION SITE | SHRIMP |
| RAPTORS | SUBMERGED AQUATIC
VEGETATION | MULTI-GROUP |
| SHOREBIRDS | SAV | ID NUMBER |
| WADING BIRDS | REPTILES | THREATENED/ENDANGERED |
| WATERFOWL | TURTLES | |
| CONCENTRATION SITE | | |

Guidelines for Interpreting ESI Maps

To help users interpret the ESI maps and tabular data, we offer the following guidelines for use in addition to the map legend:

- **Shoreline Habitats.** The "shoreline," representing the boundary between land and water, is color-coded with the ESI classification. Most shoreline habitats are shown as a line, with no areal dimension. Where there is more than one shoreline type (e.g., a beach in front of a seawall), the colors for each habitat are shown, with the color for the landward habitat on the land side of the shoreline and the color for the seaward habitat on the water side. In areas where the intertidal zone is wide (e.g., wide tidal flats, wave-cut rocky platforms), the habitat from high to low water is filled with the ESI classification color. When data are available, the entire extent of wetlands are filled with colored patterns. The seaward edge of the wetland is color-coded with the ESI classification; the landward extent of the wetland is indicated by a dashed, colored line.
- **Biological Resources.** The distribution of biological resources is shown using many different conventions. The major convention is an icon associated with a point, line, or polygon that shows the species' areal distribution. The icon's reference number corresponds to a data table with details on species and life history. Biological resource data are organized into six major groups, each with a reference color: birds (green), mammals (brown), fish (blue), shellfish (orange), reptiles (red), and rare/endangered plants and special habitats (purple). These colors are used to fill hatched polygons and the icons. Each major group has subgroups with unique icons to visually indicate the type of organism or feature present. The icon or group of icons is usually located inside the polygon it represents; however, sometimes a line is connected between the icon and the polygon or point to make it easier to relate the two. Note that icons are used to indicate the types of resources present, but the actual data are the points and polygons. A red box around an icon indicates the presence of a species on the state or Federal list of threatened or endangered species.

The number listed below each icon refers to the first column of a data table for each map. The data tables, organized by group (birds, fish, etc.), include the following information: species name, status as threatened or endangered on state and Federal lists, concentration (specifically for each point or polygon), presence by month, and special life-history time periods. When a polygon contains multiple groups, the one number under the group of icons is listed under each group heading in the data tables. Where possible, the same number is used on multiple maps. For example, all bald eagle nests with the same seasonality could have the same number throughout the atlas, or the same assemblage of fish would have the same number wherever it occurred.

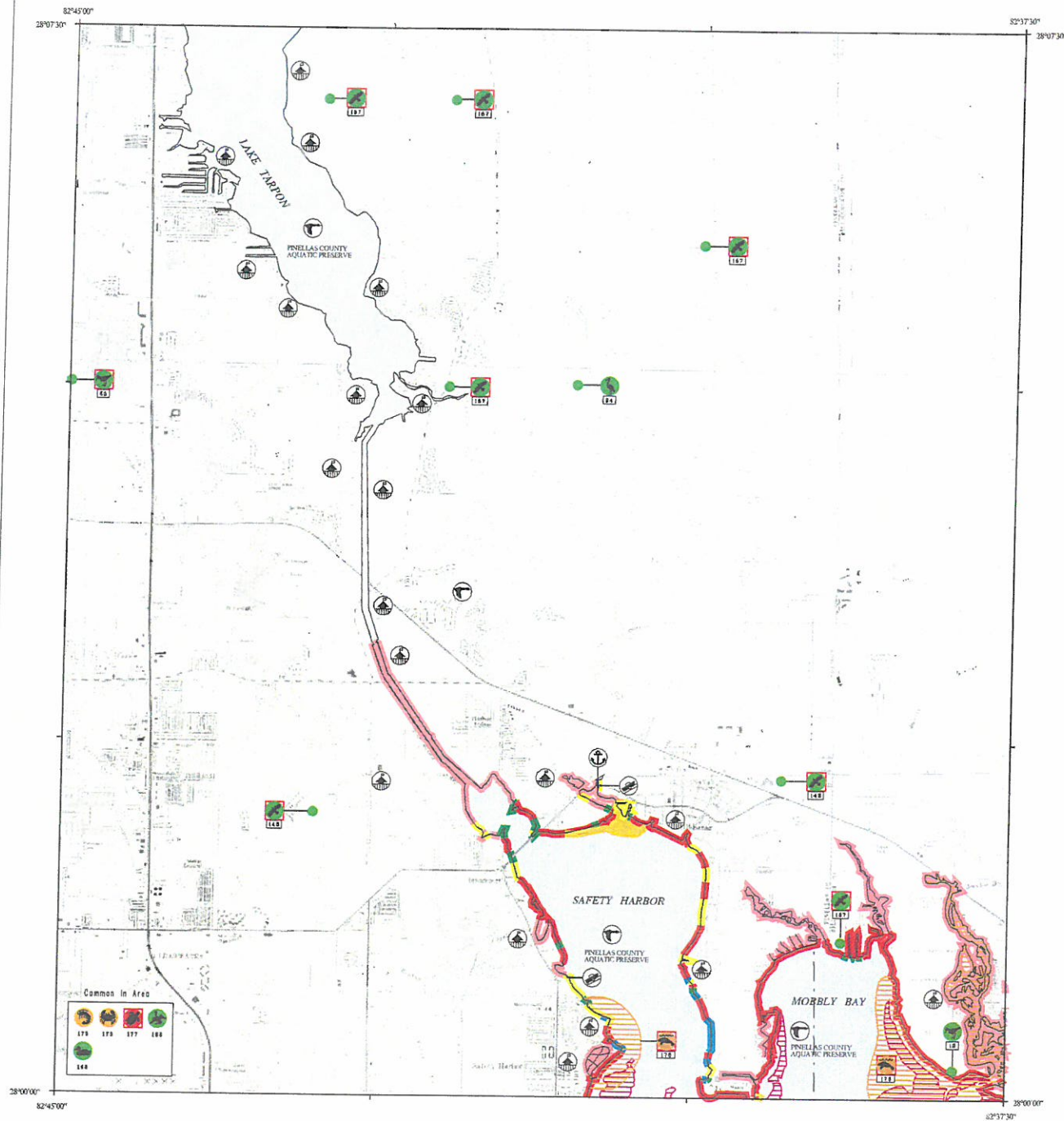
A data table has a separate listing for every unique combination of species, concentration, seasonality, life-history stage, and source. By looking at the monthly seasonality data in the table for each map, the species present at the time of concern can be easily identified. An 'X' or number is placed under each month in which any life stage of the species is present in the area represented by the point or polygon. Numbers are used typically for fish and shellfish where data on relative abundance are available. The final columns in the data tables include the months when reproductive activities occur or early life stages are present. Users should pay close attention to the data tables because they contain much of the information needed to identify the most sensitive resources at different times of the year.

Points, lines, and polygons on a map represent the distribution of the resources. Green points show bird nesting sites, including bald eagle nests and dense colonial nesters (e.g., heron rookeries and seabird nesting colonies). Animals and habitats are also represented as: 1) hatched polygons in the color for the animal group (e.g., green for birds); 2) black hatched polygons which contain multiple groups of resources (birds and fish in the same tidal channels); 3) solid lines (usually used for fish in small streams); or 4) in "common in ..." boxes. When showing the biological resource polygons would make the maps too difficult to read (usually when multiple polygons cover a large area), the polygons are not plotted and the presence of the resource is indicated by placing the icon in a box labeled "common in ...". The box contains an appropriate geographic reference. Different boxes can be used on the same map when, for example: "common in Winyah Bay" or "common in tidal creeks." The data for these resources are still fully present in the database but are not shown to make the maps more readable.

- Human-use Resources. Most of the human-use resources are point features indicated by a black-and-white icon. Managed lands, such as refuges and sanctuaries, have their boundaries shown as a dot-dash line with an icon and name placed inside. Where the feature is a known point location (e.g., a drinking water intake, boat ramp, marina), the exact location is shown as a small black dot and a line is drawn from it to the icon. Activities such as commercial and recreational fishing and areas such as recreational beaches are also indicated by an icon placed in the general area without any lines to points or polygons since the boundaries are not readily defined.

Some features, like historic and archaeological sites, are location-sensitive: the agency managing the resource believes the exact location should not be shown in order to protect the site. In these cases, the icon is placed in the general area of the resource, but the exact location is not shown.

ENVIRONMENTAL SENSITIVITY INDEX MAP



Prepared by:
Research Planning, Inc.

RPI

Prepared for:
Florida Department of
Environmental Protection

FLORIDA

Not For Navigation
Published: May 1996

OLDSMAR, FLA.(1987) WP1-25

WEST PENINSULAR FLORIDA - ESIMAP 25

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
19	Shorebirds				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
64	Great egret				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Little blue heron				X	X	X	X	X	X	X	X	X	X	X	X	FEB-SEP	-	-	-
65	American oystercatcher			40	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
	Black-bellied plover			500	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Dunlin				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Greater yellowlegs				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Killdeer				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Least sandpiper				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser yellowlegs				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Marbled godwit				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Piping plover			S/F T/T 12	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Red knot				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Ruddy turnstone				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Sanderling			200	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Semipalmated plover			200	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Semipalmated sandpiper			200	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Short-billed dowitcher				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Spotted sandpiper				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Western sandpiper				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Whimbrel				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	White-rumped sandpiper				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Willet				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
143	Bald eagle			S/F T/T	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-
157	Bald eagle			S/F T/T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
168	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Common loon			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser scaup			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Red-breasted merganser			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Redhead			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

M MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
176	West Indian manatee			S/F E/E LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

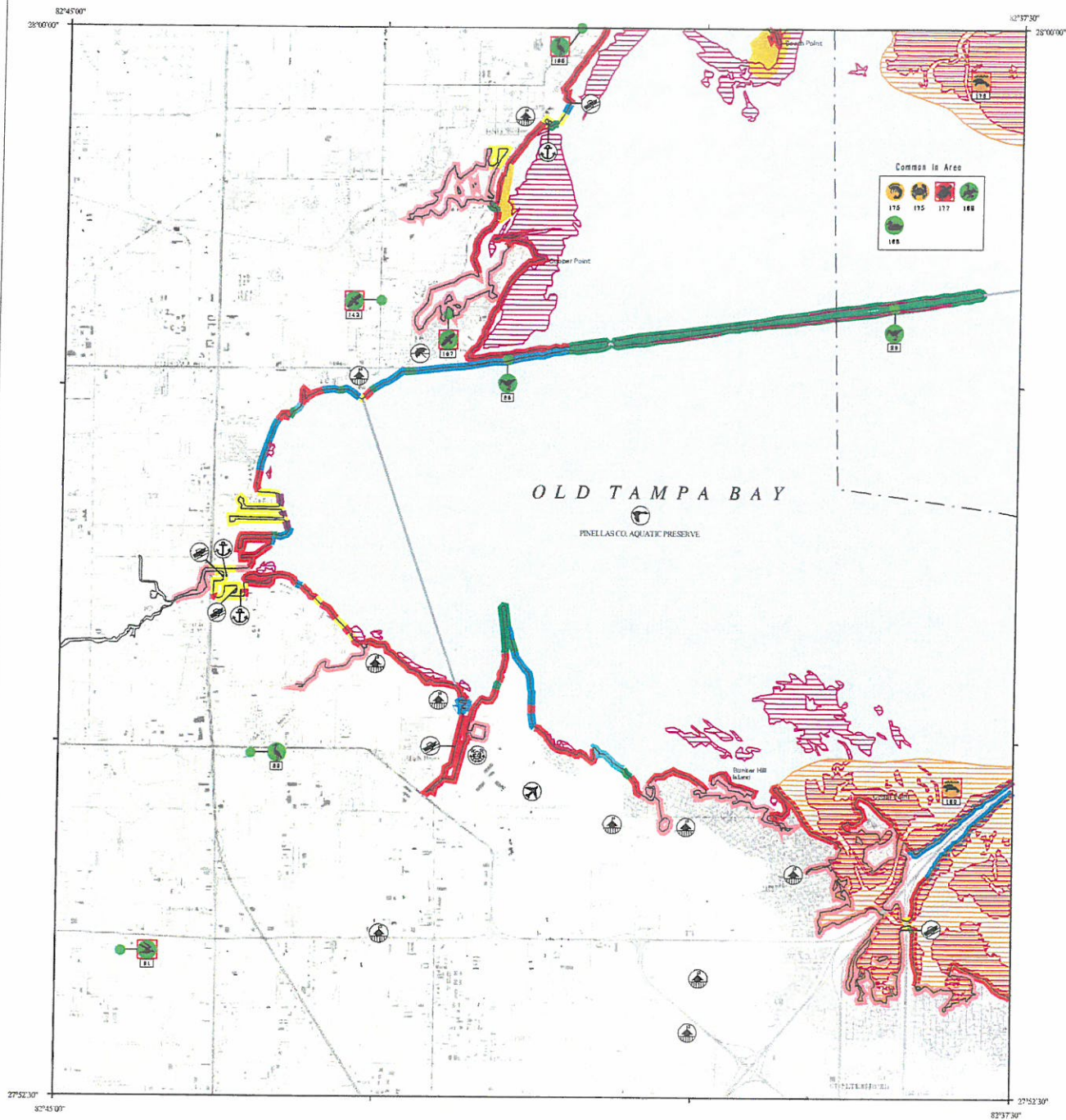
RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting
177	Green sea turtle			S/F E/E LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Kemp's ridley sea turtle			S/F E/E MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Loggerhead sea turtle			S/F T/T LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae/Juv	Mating
175	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	MAR-DEC
	Pink shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	SEP-NOV

HUMAN USE RESOURCES:

ENVIRONMENTAL SENSITIVITY INDEX MAP



Prepared by:
Research Planning, Inc.



Prepared for:
Florida Department of
Environmental Protection



SAFETY HARBOR, FLA. (1987) WP1-27

WEST PENINSULAR FLORIDA - ESIMAP 27

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
29	Shorebirds			1000	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
85	Black-bellied plover			1	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Dunlin			80	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Greater yellowlegs				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Killdeer				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Least sandpiper			6	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser yellowlegs				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Peep				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Red knot			30	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Sanderling				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Semipalmated plover				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Semipalmated sandpiper				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Sharp-tailed sandpiper			2	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Shorebirds				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Spotted sandpiper				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Stilt sandpiper			2	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Western sandpiper				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Willet			100	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
89	Yellow-crowned night heron				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
91	Least tern	S	T	100	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	-
143	Bald eagle	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	-
157	Bald eagle	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-
165	Wood stork	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
168	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Common loon			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser scaup			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Red-breasted merganser			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Redhead			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

M MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
176	West Indian manatee	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
180	West Indian manatee	S/F	E/E	MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

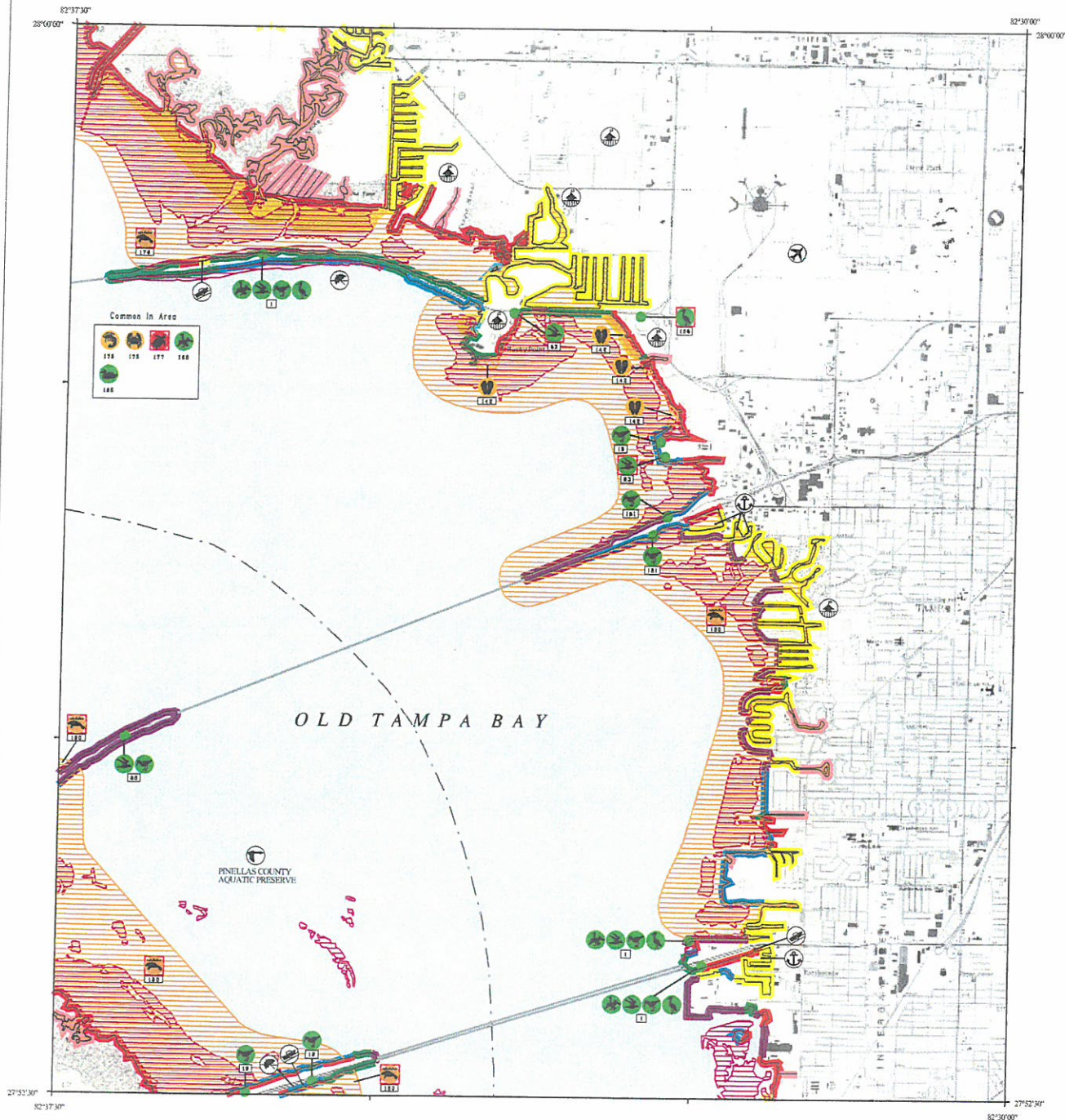
RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting
177	Green sea turtle	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Kemp's ridley sea turtle	S/F	E/E	MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Loggerhead sea turtle	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae/Juv	Mating
175	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	MAR-DEC
	Pink shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	SEP-NOV

HUMAN USE RESOURCES:

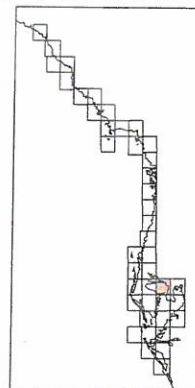
ENVIRONMENTAL SENSITIVITY INDEX MAP



Prepared by:
Research Planning, Inc.



Prepared for:
Florida Department of
Environmental Protection



Not For Navigation
Published: May 1996

GANDY BRIDGE, FLA. (1987) WP1-28

WEST PENINSULAR FLORIDA - ESIMAP 28

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
1	Diving birds				X	X	X	X	X	X	X	X	X	X	X	X	NOV-SEP	-	-	-
	Gulls				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Shorebirds				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Terns				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Wading birds				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
19	Shorebirds				X	X	X	X	X	X	X	X	X	X	X	X	DEC-SEP	-	-	-
83	Least tern				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
88	American oystercatcher	S	T			X	X	X	X	X	X						APR-AUG	-	-	-
	Black skimmer				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
165	Wood stork				X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-	-
168	Brown pelican	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bufflehead			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Common loon			LOW	X	X										X	-	-	-	-
	Double-crested cormorant			LOW	X	X	X	X								X	X	-	-	-
	Lesser scaup			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Red-breasted merganser			HIGH	X	X	X	X								X	X	X	-	-
	Redhead			MED	X	X	X									X	X	-	-	-
181	Shorebirds			MED	X	X	X									X	X	-	-	-
				HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

M MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
176	West Indian manatee	S/F	E/E	LOW		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
180	West Indian manatee	S/F	E/E	MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting
177	Green sea turtle	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Kemp's ridley sea turtle	S/F	E/E	MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Loggerhead sea turtle	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae/Juv	Mating
142	American oyster (eastern)			LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAR-OCT	-	-
175	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	MAR-DEC
	Pink shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	SEP-NOV

HUMAN USE RESOURCES:

WEST PENINSULAR FLORIDA - ESIMAP 31

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
19	Shorebirds				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
103	Black skimmer				X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-	-
168	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X										X	-	-	-	-
	Common loon			LOW	X	X	X	X								X	-	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser scaup			HIGH	X	X	X	X								X	-	-	-	-
	Red-breasted merganser			MED	X	X	X	X								X	-	-	-	-
	Redhead			MED	X	X	X									X	-	-	-	-

M MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
180	West Indian manatee			S/F E/E MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

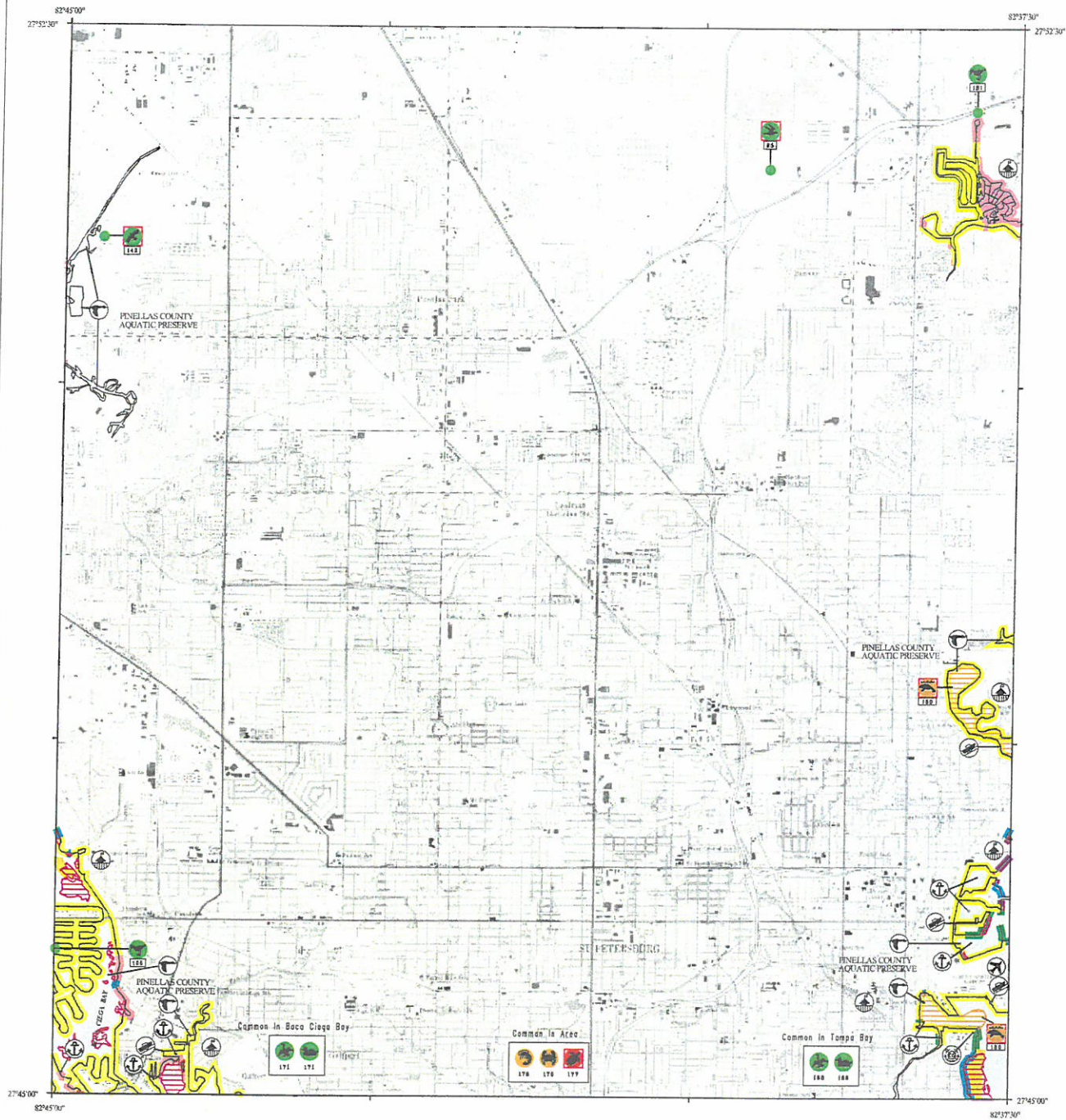
RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting
177	Green sea turtle			S/F E/E LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Kemp's ridley sea turtle			S/F E/E MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Loggerhead sea turtle			S/F T/T LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae/Juv	Mating
175	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	MAR-DEC
	Pink shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	SEP-NOV

(b) (7)(F)

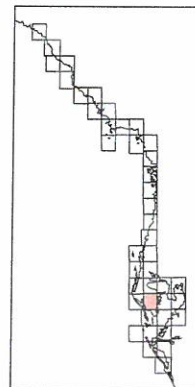
ENVIRONMENTAL SENSITIVITY INDEX MAP



Prepared by:
Research Planning, Inc.



Prepared for:
Florida Department of
Environmental Protection



Not For Navigation
Published: May 1996

ST. PETERSBURG, FLA.(1987) WP1-32

WEST PENINSULAR FLORIDA - ESIMAP 32

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F T/E Concen			J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
		S	T	10												APR-AUG				
95	Least tern					X	X	X	X	X	X	X	X							
105	Black-bellied plover				X	X	X	X	X	X	X	X	X	X			-	-	-	-
	Dunlin				X	X	X	X	X	X	X	X	X	X			-	-	-	-
	Greater yellowlegs				X	X	X	X	X	X	X	X	X	X			-	-	-	-
	Least sandpiper				X	X	X	X	X	X	X	X	X	X			-	-	-	-
	Lesser yellowlegs				X	X	X	X	X	X	X	X	X	X			-	-	-	-
	Red knot				X	X	X	X	X	X	X	X	X	X			-	-	-	-
	Ruddy turnstone				X	X	X	X	X	X	X	X	X	X			-	-	-	-
	Sanderling				X	X	X	X	X	X	X	X	X	X			-	-	-	-
	Semipalmated plover				X	X	X	X	X	X	X	X	X	X			-	-	-	-
	Semipalmated sandpiper				X	X	X	X	X	X	X	X	X	X			-	-	-	-
	Western sandpiper				X	X	X	X	X	X	X	X	X	X			-	-	-	-
143	Bald eagle	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X		NOV-JUN			
168	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X		-	-	-	-
	Bufflehead			LOW	X	X											-	-	-	-
	Common loon			LOW	X	X	X	X							X		-	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X		-	-	-	-
	Lesser scaup			HIGH	X	X	X	X									-	-	-	-
	Red-breasted merganser			MED	X	X	X	X						X	X		-	-	-	-
	Redhead			MED	X	X	X						X	X			-	-	-	-
171	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X		-	-	-	-
	Bufflehead			LOW	X	X									X		-	-	-	-
	Common loon			LOW	X	X	X	X							X		-	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X		-	-	-	-
	Lesser scaup			MED	X	X	X	X						X	X		-	-	-	-
	Red-breasted merganser			LOW	X	X	X	X						X	X		-	-	-	-
	Redhead			LOW	X	X	X							X	X		-	-	-	-
181	Shorebirds			HIGH	X	X	X	X	X	X	X	X	X	X	X		-	-	-	-

M MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
180	West Indian manatee	S/F	E/E	MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

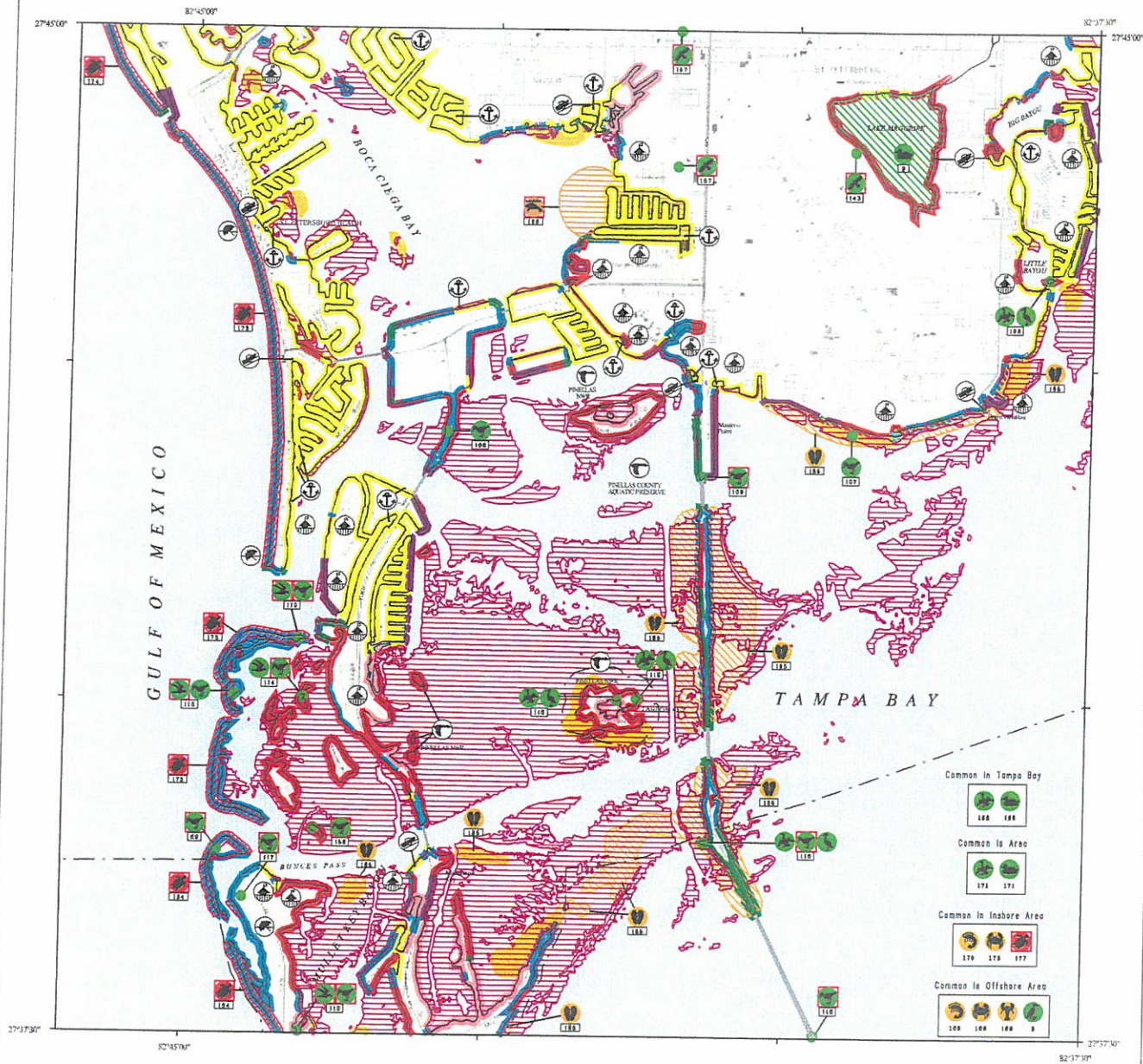
RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting
177	Green sea turtle	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Kemp's ridley sea turtle	S/F	E/E	MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Loggerhead sea turtle	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae/Juv	Mating
175	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	MAR-DEC
	Pink shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	SEP-NOV

HUMAN USE RESOURCES:

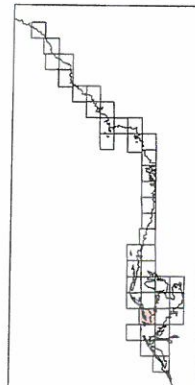
ENVIRONMENTAL SENSITIVITY INDEX MAP



Prepared by:
Research Planning, Inc.



Prepared for:
Florida Department of
Environmental Protection



Not For Navigation
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PASS-A-GRILLE BEACH, FLA. (1983) WP1-34

WEST PENINSULAR FLORIDA - ESIMAP 34

BIOLOGICAL RESOURCES:

BIRD:																				
RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
8	Northern gannet			LOW	X	X	X	X							X		-	-	-	-
9	Waterfowl			HIGH	X	X	X								X	X	-	-	-	-
69	Snowy plover	S	T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
107	American oystercatcher			2	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
	Black-bellied plover			8	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Least sandpiper			16	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Marbled godwit			3	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Red knot			11	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Ruddy turnstone			40	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Semipalmated plover			9	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Spotted sandpiper			3	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Western sandpiper			8	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Whimbrel			3		X	X	X	X	X	X	X					-	-	-	-
	Willet			30	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Wilson's plover			1	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
108	Black-bellied plover				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Shorebirds				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Whimbrel					X	X	X	X	X	X	X					-	-	-	-
109	American oystercatcher				X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
	Black-bellied plover				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Dunlin				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Least sandpiper				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Marbled godwit				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Piping plover				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Ruddy turnstone				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Sanderling				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Semipalmated plover				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Shorebirds				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Short-billed dowitcher				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Snowy plover				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Western sandpiper				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Whimbrel					X	X	X	X	X	X	X					-	-	-	-
	Wilson's plover				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
110	Black skimmer				X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-	-
	Least tern				X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	-
	Shorebirds				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Snowy plover				X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
	Willet				X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-	-
112	Brown pelican				X	X	X	X	X	X	X	X	X	X	X	X	NOV-SEP	-	-	-
	Double-crested cormorant				X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-	-
	Great blue heron			101	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUL	-	-	-
	Great egret			500	X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUN	-	-	-
	Little blue heron				X	X	X	X	X	X	X	X	X	X	X	X	FEB-SEP	-	-	-
	Reddish egret				X	X	X	X	X	X	X	X	X	X	X	X	DEC-JUN	-	-	-
	Roseate spoonbill				X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY	-	-	-
	Tricolored heron				X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUL	-	-	-
	Wading birds			500	X	X	X	X	X	X	X	X	X	X	X	X	DEC-AUG	-	-	-
113	Black-crowned night heron			1	X	X	X	X	X	X	X	X	X	X	X	X	DEC-JUL	-	-	-
	Brown pelican			720	X	X	X	X	X	X	X	X	X	X	X	X	NOV-SEP	-	-	-
	Double-crested cormorant			17	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-	-
	Great blue heron				X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUL	-	-	-
	Great egret			65	X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUN	-	-	-
	Little blue heron			1	X	X	X	X	X	X	X	X	X	X	X	X	FEB-SEP	-	-	-
	Roseate spoonbill			13													-	-	-	-
	Tricolored heron			1	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUL	-	-	-
	White ibis			73	X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	-
114	Black skimmer				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Piping plover				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Royal tern				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
115	American oystercatcher				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Black skimmer				X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-	-
	Least tern					X	X	X	X	X	X	X					APR-AUG	-	-	-
	Willet				X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-	-
	Wilson's plover				X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-	-
116	American oystercatcher				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Anhinga				X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	-
	Black-crowned night heron				X	X	X	X	X	X	X	X	X	X	X	X	DEC-JUL	-	-	-
	Brown pelican				X	X	X	X	X	X	X	X	X	X	X	X	NOV-SEP	-	-	-
	Cattle egret				X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-	-
	Double-crested cormorant				X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-	-
	Glossy ibis				X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	-	-
	Great blue heron				X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUL	-	-	-
	Great egret				X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUN	-	-	-
	Little blue heron				X	X	X	X	X	X	X	X	X	X	X	X	FEB-SEP	-	-	-
	Piping plover				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Reddish egret				X	X	X	X	X	X	X	X	X	X	X	X	DEC-JUN	-	-	-
	Snowy egret				X	X	X	X	X	X	X	X	X	X	X	X	DEC-AUG	-	-	-
	Tricolored heron				X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUL	-	-	-
	White ibis				X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	-
	Yellow-crowned night heron				X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	-
117	American oystercatcher				X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
	Black-bellied plover				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Dunlin				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Least sandpiper				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser-golden plover			1	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Marbled godwit				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Piping plover				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Ruddy turnstone				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Sanderling				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Semipalmated plover				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Short-billed dowitcher				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Snowy plover				X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
	Western sandpiper				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

WEST PENINSULAR FLORIDA - ESIMAP 34 (cont.)

BIOLOGICAL RESOURCES: (cont.)

BIRD: (cont.)

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
	Willet				X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-	-
	Wilson's plover				X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-	-
118	American oystercatcher				X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
	Black-bellied plover				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Dunlin				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Least sandpiper				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Marbled godwit				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Piping plover				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Ruddy turnstone	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Sanderling				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Semipalmated plover				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Short-billed dowitcher				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Snowy plover	S	T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Western sandpiper				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Wilson's plover				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
143	Bald eagle	S/F	T/T	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
157	Bald eagle	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-
158	Piping plover	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
168	Brown pelican	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Common loon			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser scaup			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Red-breasted merganser			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Redhead			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
171	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Common loon			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser scaup			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Red-breasted merganser			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Redhead			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
186	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	NOV-SEP	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-	-
	Great blue heron			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUL	-	-	-
	Great egret			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUN	-	-	-

M MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
180	West Indian manatee	S/F	E/E	MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

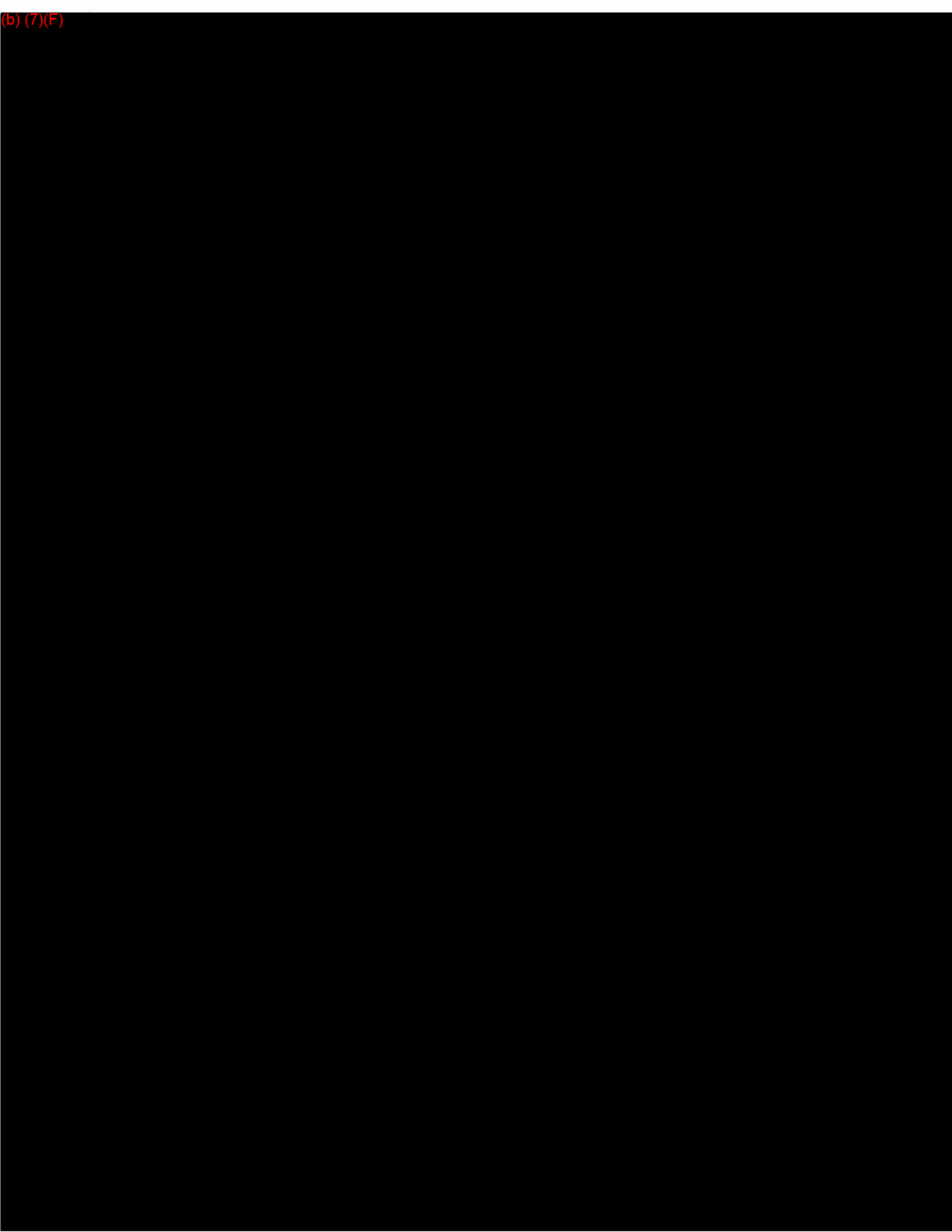
REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting
173	Loggerhead sea turtle	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	JUN-NOV	MAR-SEP
174	Kemp's ridley sea turtle	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	MAY-AUG	MAR-JUL
	Loggerhead sea turtle	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	JUN-NOV	MAR-SEP
177	Green sea turtle	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Kemp's ridley sea turtle	S/F	E/E	MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Loggerhead sea turtle	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
184	Green sea turtle	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X	JUN-AUG	JUL-OCT	MAY-AUG
	Loggerhead sea turtle	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	JUN-NOV	MAR-SEP

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae/Juv	Mating
169	Blue crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	-
	Pink shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-
	Spiny lobster			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAR-OCT	JAN-DEC	-
175	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	MAR-DEC
	Pink shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
185	Quahog spp. (hard clam)			MED	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	SEP-NOV

HUMAN USE RESOURCES:



WEST PENINSULAR FLORIDA - ESIMAP 35

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
1	Diving birds				X	X	X	X	X	X	X	X	X	X	X	X	NOV-SEP	-	-	-
	Gulls				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Shorebirds				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Terns				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Wading birds				X	X	X	X	X	X	X	X	X	X	X	X	DEC-SEP	-	-	-
2	Shorebirds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	-
19	Shorebirds				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
143	Bald eagle			S/F T/T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
157	Bald eagle			S/F T/T	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-
168	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Common loon			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser scaup			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Red-breasted merganser			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Redhead			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
180	West Indian manatee			S/F E/E MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

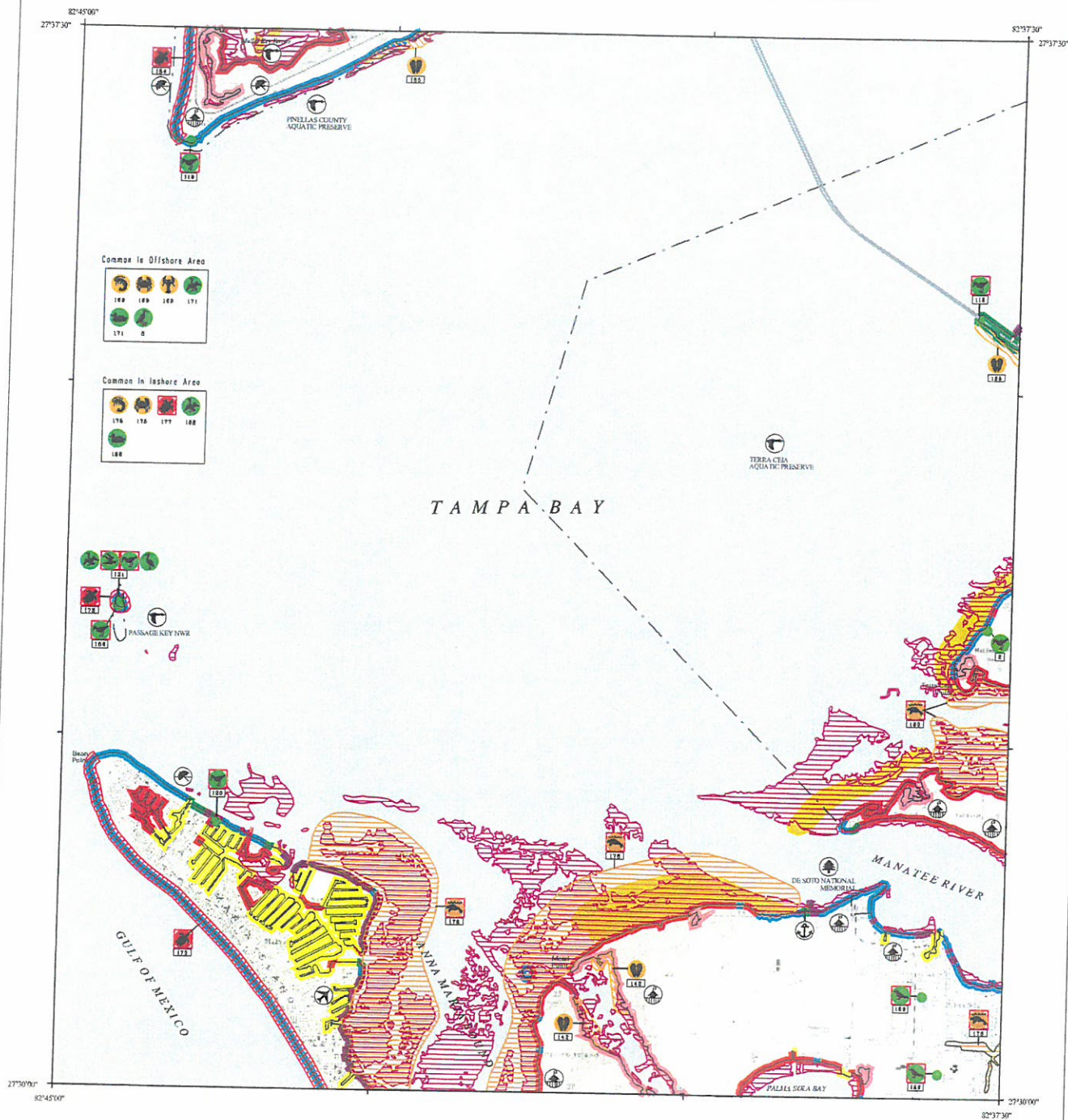
RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting
177	Green sea turtle			S/F E/E LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Kemp's ridley sea turtle			S/F E/E MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Loggerhead sea turtle			S/F T/T LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae/Juv	Mating
175	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	MAR-DEC
	Pink shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	SEP-NOV

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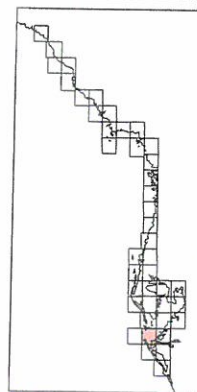
ENVIRONMENTAL SENSITIVITY INDEX MAP



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Research Planning, Inc.



Prepared for:
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ANNA MARIA, FLA. (1981) WP1-38

WEST PENINSULAR FLORIDA - ESIMAP 38

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
2	Shorebirds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	-
8	Northern gannet			LOW	X	X	X	X										-	-	-
118	American oystercatcher				X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
	Black-bellied plover				X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Dunlin				X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Least sandpiper				X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Marbled godwit				X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Piping plover				X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Ruddy turnstone		S/F	T/T	X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Sanderling				X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Semipalmated plover				X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Short-billed dowitcher				X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Snowy plover				X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Western sandpiper		S	T	X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Wilson's plover				X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
119	Piping plover		S/F	T/T	19	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Shorebirds			1000	X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
120	Piping plover		S/F	T/T	45	X	X	X	X	X	X	X	X	X	X	X		-	-	-
121	Black skimmer				X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Brown pelican				X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-	-
	Great blue heron				X	X	X	X	X	X	X	X	X	X	X	X	NOV-SEP	-	-	-
	Laughing gull				X	X	X	X	X	X	X	X	X	X	X	X	DEC-JUL	-	-	-
	Least tern				X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	-
	Royal tern		S	T	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	-
	Sandwich tern				X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	-
	Shorebirds				X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	-
	Snowy egret				X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Snowy plover		S	T	X	X	X	X	X	X	X	X	X	X	X	X	DEC-AUG	-	-	-
158	Piping plover		S/F	T/T	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
159	Florida scrub jay		S/F	T/T	X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
168	Brown pelican				X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Bufflehead			HIGH	X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Common loon			LOW	X	X										X		-	-	-
	Double-crested cormorant			LOW	X	X	X	X							X	X		-	-	-
	Lesser scaup			HIGH	X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Red-breasted merganser			HIGH	X	X	X	X							X	X		-	-	-
	Redhead			MED	X	X	X	X							X	X		-	-	-
	Redhead			MED	X	X	X								X	X		-	-	-
171	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Bufflehead			LOW	X	X										X		-	-	-
	Common loon			LOW	X	X	X	X							X	X		-	-	-
	Double-crested cormorant			LOW	X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Lesser scaup			HIGH	X	X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Red-breasted merganser			MED	X	X	X	X							X	X		-	-	-
	Redhead			LOW	X	X	X	X							X	X		-	-	-
	Redhead			LOW	X	X	X								X	X		-	-	-

M MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
176	West Indian manatee		S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
180	West Indian manatee		S/F	E/E	MED	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

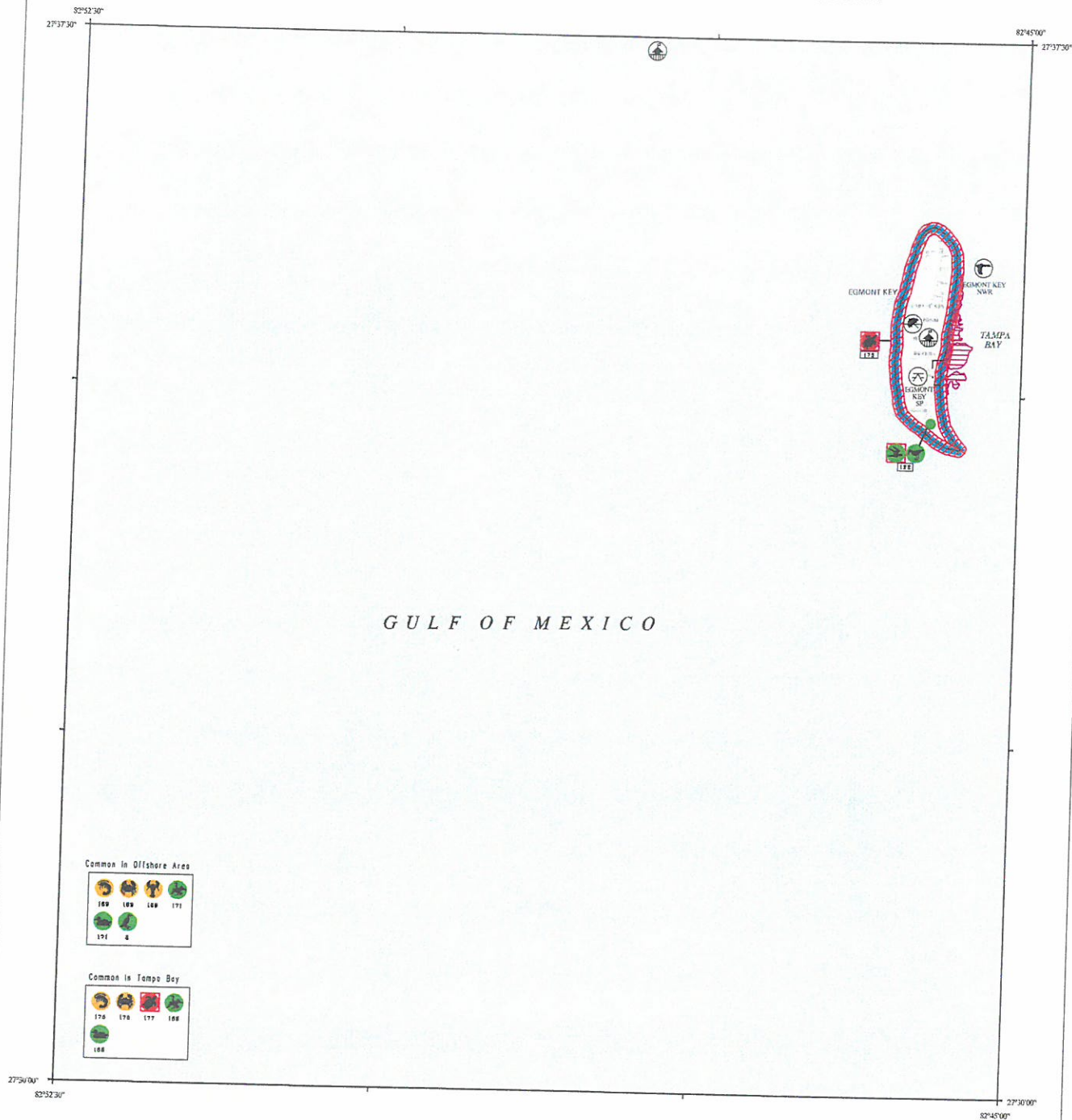
RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting
173	Loggerhead sea turtle		S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	JUN-NOV	MAR-SEP
177	Green sea turtle		S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Kemp's ridley sea turtle		S/F	E/E	MED	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Loggerhead sea turtle		S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	-	-	-
184	Green sea turtle		S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	JUN-AUG	JUL-OCT	MAY-AUG
	Loggerhead sea turtle		S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	JUN-NOV	MAR-SEP

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae/Juv	Mating
142	American oyster (eastern)			LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAR-OCT	-	-
169	Blue crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	-
	Pink shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-
	Spiny lobster			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAR-OCT	JAN-DEC	-
175	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	MAR-DEC
	Pink shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
185	Quahog spp. (hard clam)			MED	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	SEP-NOV

HUMAN USE RESOURCES:

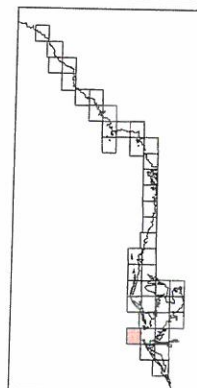
ENVIRONMENTAL SENSITIVITY INDEX MAP



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EGMONT KEY, FLA.(1981) WP1-39

WEST PENINSULAR FLORIDA - ESIMAP 39

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
8	Northern gannet			LOW	X	X	X	X								X	-	-	-	-
122	American oystercatcher			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
	Black skimmer				X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-	-
	Least tern	S	T				X	X	X	X	X	X					APR-AUG	-	-	-
	Shorebirds				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
168	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X											-	-	-	-
	Common loon			LOW	X	X										X	-	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X								X	-	-	-	-
	Lesser scaup			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Red-breasted merganser			MED	X	X	X	X								X	-	-	-	-
	Redhead			MED	X	X	X	X								X	-	-	-	-
171	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X										X	-	-	-	-
	Common loon			LOW	X	X	X	X								X	-	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser scaup			MED	X	X	X	X								X	-	-	-	-
	Red-breasted merganser			LOW	X	X	X	X								X	-	-	-	-
	Redhead			LOW	X	X	X									X	-	-	-	-

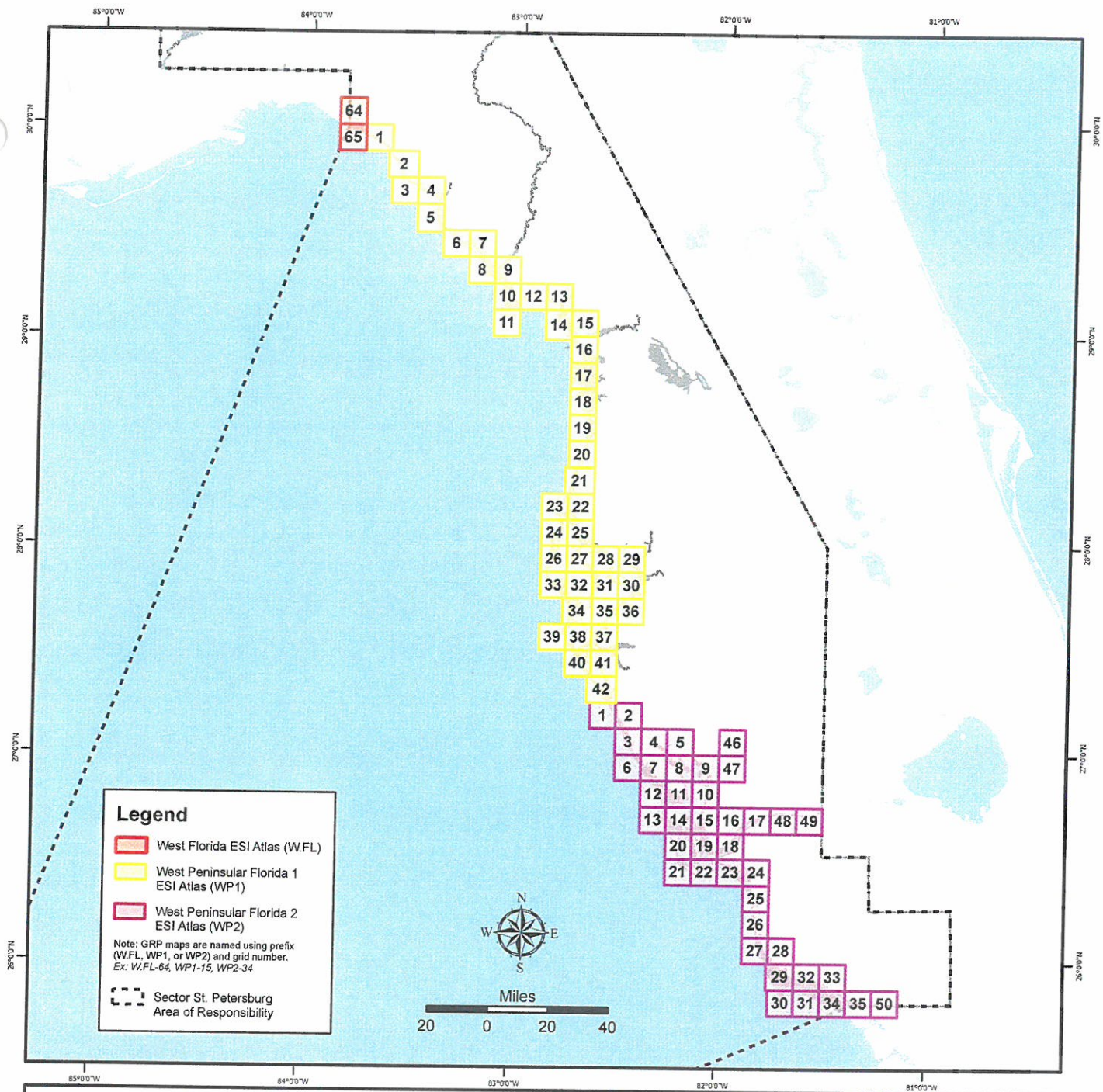
REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting
173	Loggerhead sea turtle			LOW			X	X	X	X	X	X	X	X	X	X	APR-SEP	JUN-NOV	MAR-SEP
177	Green sea turtle	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Kemp's ridley sea turtle	S/F	E/E	MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Loggerhead sea turtle	S/F	T/T	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae/Juv	Mating
169	Blue crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	-
	Pink shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-
	Spiny lobster			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAR-OCT	JAN-DEC	-
175	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	MAR-DEC
	Pink shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	SEP-NOV

HUMAN USE RESOURCES:



USCG Sector St. Petersburg Area Response Plan Maps



Maps Prepared by:



Florida Fish and Wildlife
Conservation Commission
Fish and Wildlife Research Institute

Data provided by:



National Oceanic and
Atmospheric Administration



Florida Fish and Wildlife
Conservation Commission



Research Planning, Inc.

Legend

Environmental Sensitivity Index

- 1 - Exposed Walls and Other Structures Made of Concrete, Wood, or Metal
- 2A|2B - Exposed Scarps in Clay|Wave Cut Mud Platforms
- 3A|3B - Fine-Grained Sand Beaches|Scarps and Steep Slopes in Sand
- 4 - Medium to Coarse Grained Sand Beaches
- 5 - Mixed Sand and Gravel (Shell) Beaches
- 6A - Gravel (Shell) Beaches
- 6B - Exposed Rip-Rap Structures
- 7 - Exposed Tidal Flats (Sandy)
- 8A - Sheltered, Solid Man Made Structures
- 8B - Sheltered Scarps in Marsh/Mud
- 9 - Sheltered Tidal Flats/Oyster Beds (Muddy)
- 10A - Salt- and Brackish Water Marshes
- 10B - Freshwater Marshes (Herbaeaceous Vegetation)
- 10C - Freshwater Swamps (Woody Vegetation)
- 10D - Scrub-Shrub Wetlands
- Managed Areas
- GRP Index Grid

Booming Strategies

- Booming Strategies - ACP
- Deflection - IPS
- Open Water Collection - IPS
- Protection Boom - IPS
- Sediment Dike - IPS
- Collection Point - ACP
- Collection Point - IPS

Protection Priority Points

- Level A - High Priority
- Level B - Medium Priority
- Level C - Low Priority

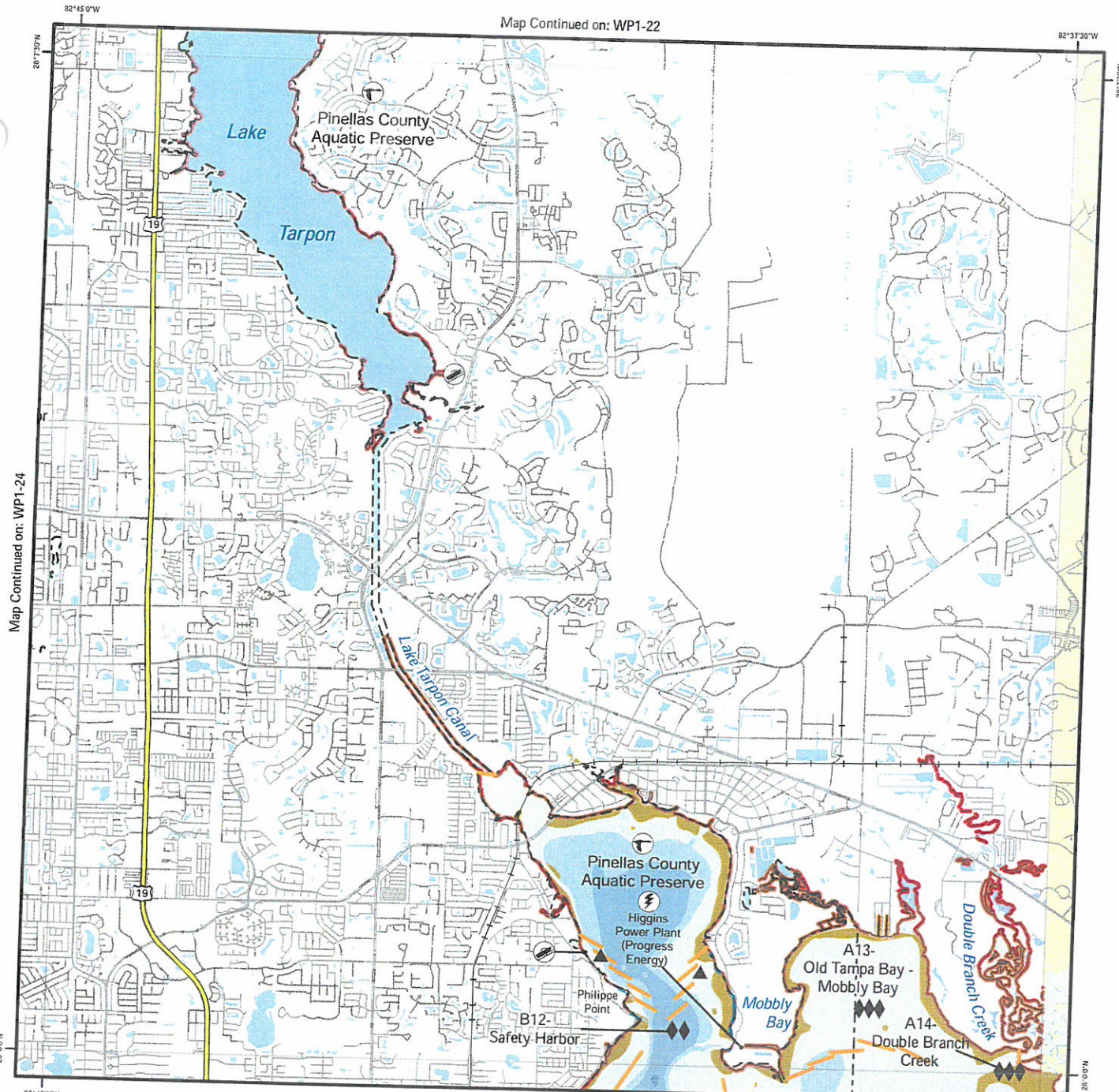
Social/Economic Points

- AIRPORT
- AQUACULTURE
- ARCHAEOLOGICAL SITE
- BEACH
- BOAT RAMP
- COAST GUARD
- DIVING
- FACTORY
- LOCK AND DAM
- MARINA
- RECREATIONAL FISHING
- WATER INTAKE
- Power Plants

Bathymetry

- 0 to 3 feet
- 3 to 6 feet
- 6 to 12 feet
- 12 to 18 feet
- 18 to 30 feet
- 30 to 60 feet
- 60 to 100 feet
- 100 to 120 feet
- < 120 feet
- Oysters
- Indeterminant Water Depth
- Exposed at Mean Lower Low Water
- Inland water
- Dredged Channel
- Spoil Area
- Frequently Changing Area

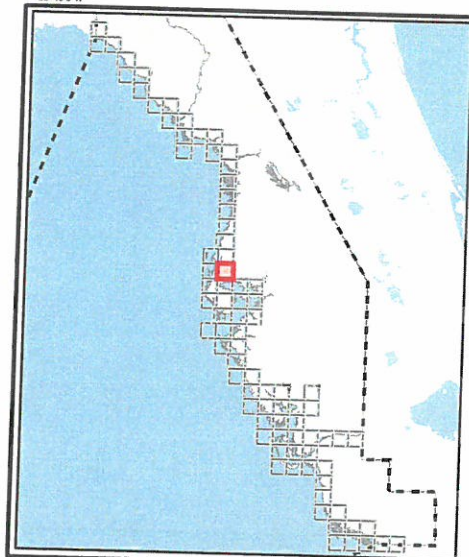
Map Continued on: WP1-22



Map Continued on: WP1-24

Map Continued on: WP1-27

Geographic Response Plan Map: WP1-25



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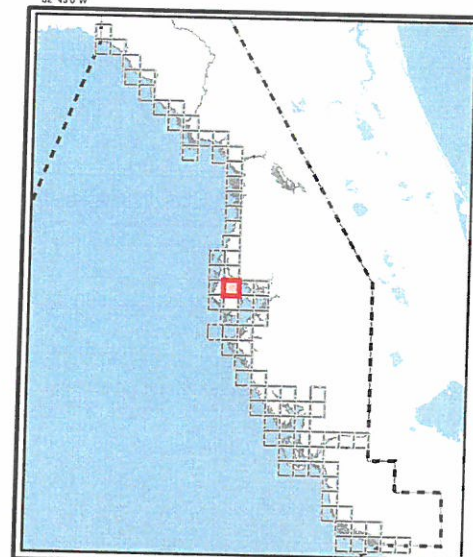
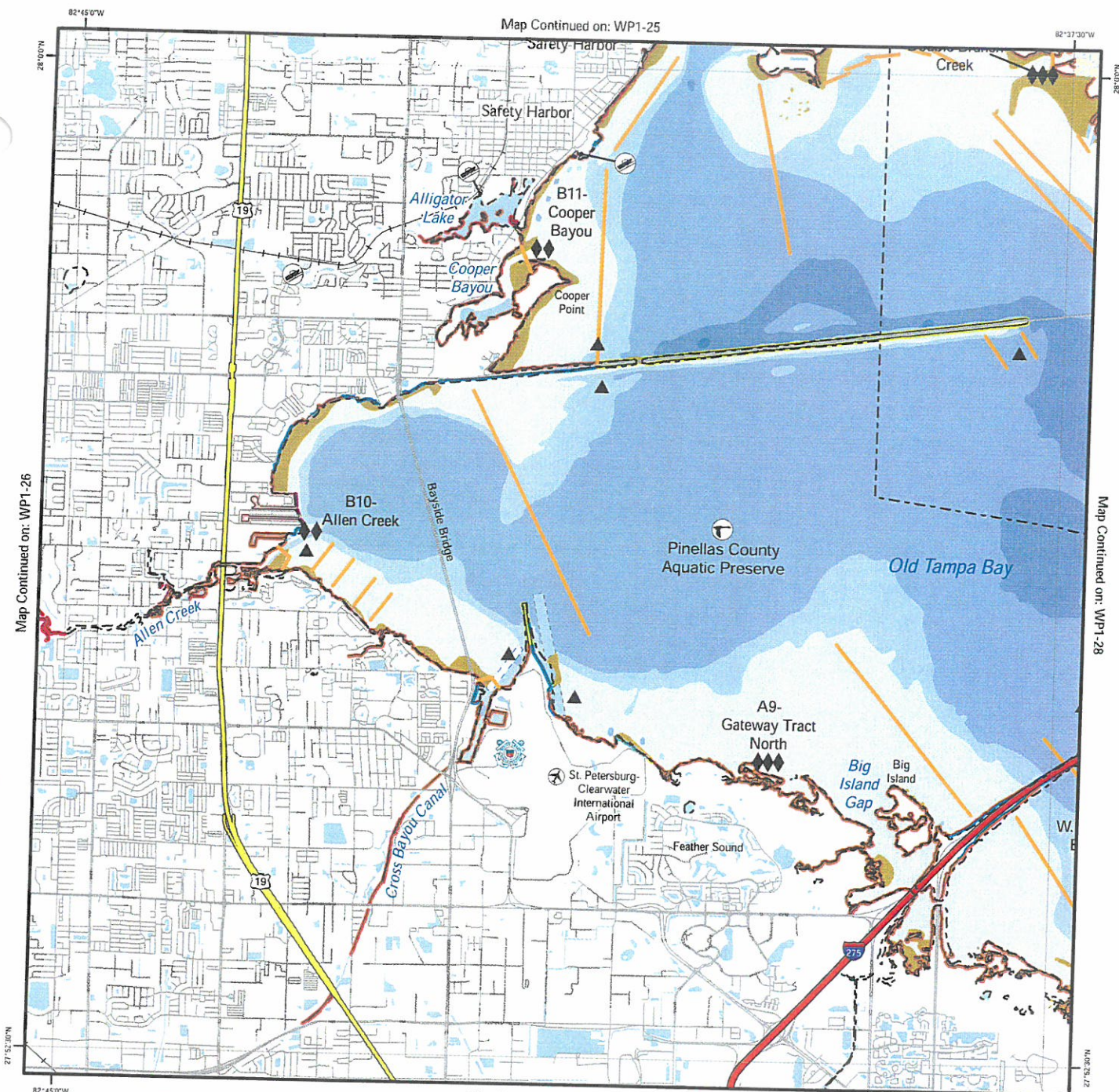


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Geographic Response Plan Map: WP1-27

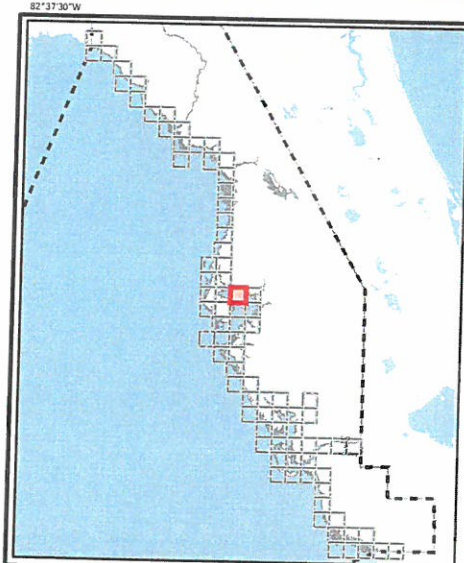
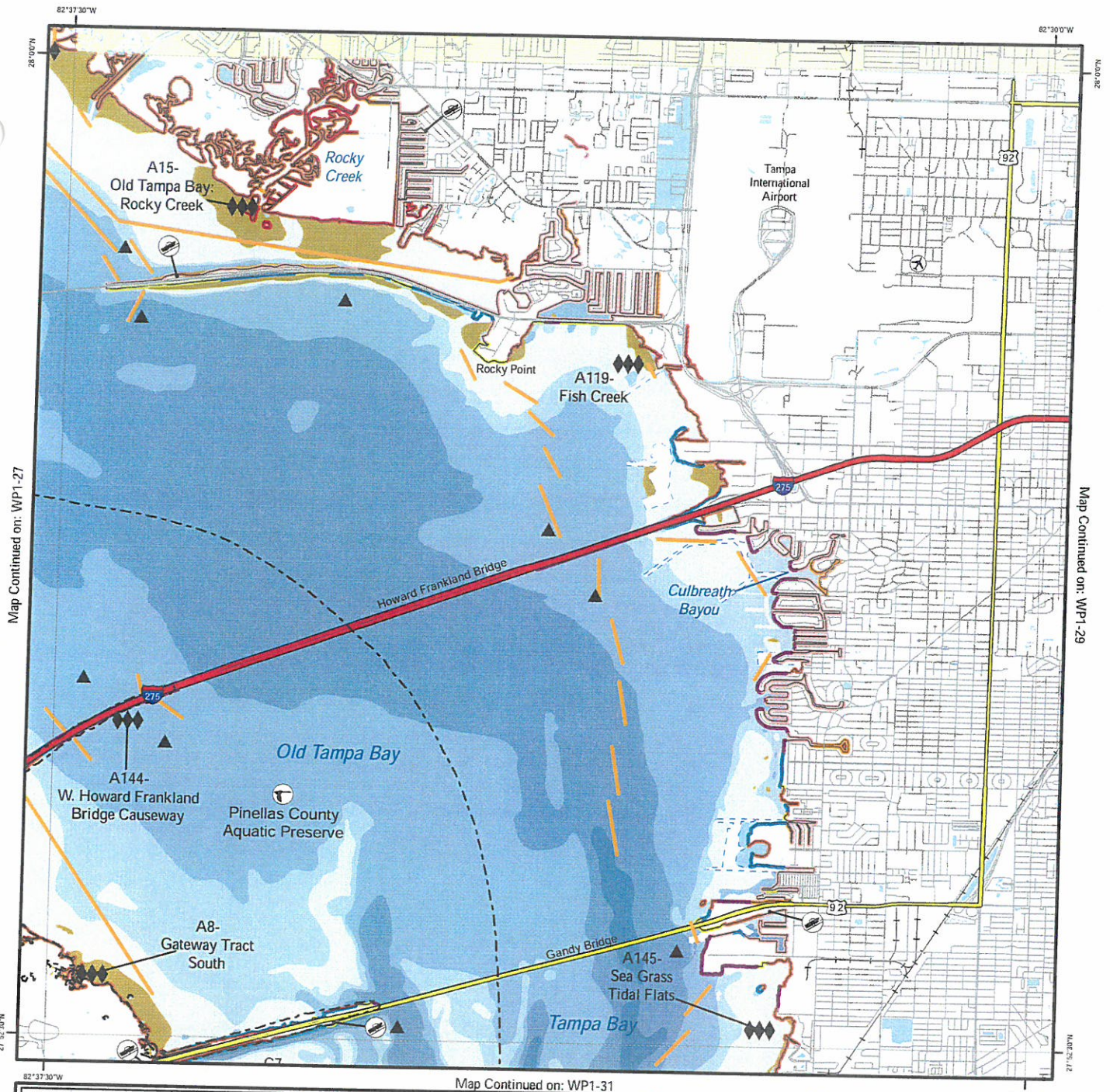


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Geographic Response Plan Map: WP1-28



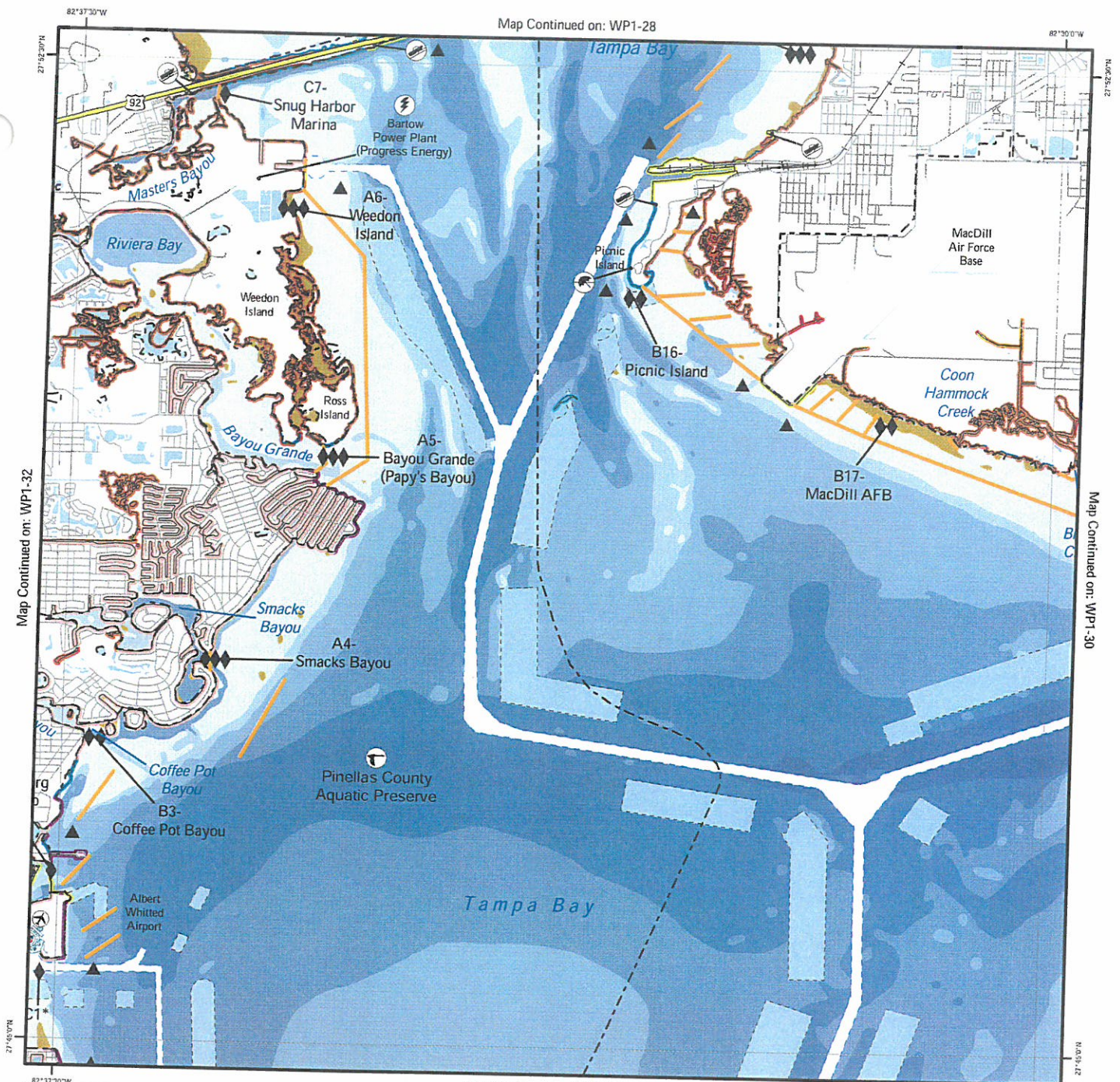
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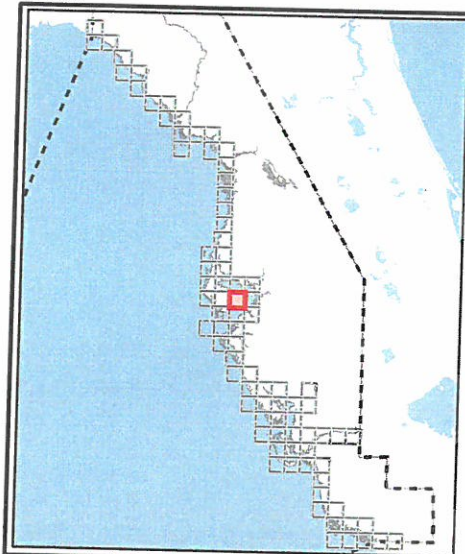


Map Continued on: WP1-28



Map Continued on: WP1-35

Geographic Response Plan Map: WP1-31



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ANNEX 3: OIL SPILL RISK ASSESSMENT

This Annex contains information on Bartow's operations that allows DEF to predict where discharges could occur. Hazard evaluation is a widely used industry practice that allows facility owners or operators to develop a complete understanding of potential hazards and the response actions necessary to address these hazards.

Hazard identification and evaluation assists DEF in planning for potential discharges, thereby reducing the severity of discharge impacts that may occur in the future. The evaluation also can help identify and correct potential sources of discharges. In addition, special hazards to workers and emergency response personnel's health and safety are evaluated, as well as the facility's oil spill history.

OIL SPILL RISK ASSESSMENT: BARTOW PLANT
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2.0 <u>Hazard Evaluation</u>	A.3-7
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4.0 <u>Discharge Scenarios</u>	A.3-10
5.0 <u>Resources for Discharge Scenarios</u>	A.3-13
6.0 <u>Site Security</u>	A.3-14
7.0 <u>Containment and Drainage Planning</u>	A.3-14
8.0 <u>Discharge Detection Systems</u>	A.3-15
9.0 <u>Hazard Identification—Chemicals</u>	A.3-15
10.0 <u>B/A Pipeline Hazard Identification: Oil</u>	A.3-16

**DUKE ENERGY FLORIDA
BARTOW CC STATION**
**EMERGENCY MANAGEMENT GUIDE
AUGUST 2013**
1.0 HAZARDS IDENTIFICATION—BARTOW PLANT

The Bartow complex consists of the P.L. Bartow power plant, its associated substation, storage tank systems, and marine transfer facility, the Bartow Gas Turbines and their associated substation and storage tank system, and the Bartow/Anclole pipeline receiving tanks and pipeline pump station.

A re-powering of the Bartow Plant was completed in 2009 including the addition of four combustion turbines (CTs) and four heat recovery steam generators (HRSGs). The HRSG use the exhaust heat from the CTs to produce steam, which turn a steam turbine. Two 3.5 million gallon fuel oil tanks, various runs of above ground- and underground oil piping, transformers, turbine lube oil tanks and other miscellaneous oil containing equipment were added as part of the re-powering project. The facility is regulated by both EPA and the USGC, and is thus categorized as a "Complex" facility.

The Bartow complex is located on reclaimed land with Old Tampa Bay to the north and east and the Weedon Island County Preserve on the west and south. The waters surrounding the facility are a very popular recreational and fishing area. A public bathing beach and marinas are located less than one mile north of the site.

The P. L. Bartow terminals store ASTM Grade No. 2 fuel oil which is an OPA-90 Group I oil. The Bartow facility also uses oil associated with electrical equipment (e.g., transformer oil, turbine lubricating oil, etc.) and vehicular fuel which is stored in underground storage tanks. All No. 2 fuel oil is received from ships and barges and is stored prior to transfer for use at the Bartow power plant. A 33 mile x 14 inch pipeline originating at the Bartow complex historically supplied the Anclole plant with No. 6 fuel oil. The pipeline is currently inactive and has been "pigged" clean.

Tank vessels are unloaded through two 8-inch unloading arms at the north terminal. No. 2 oil is received in 10,000 barrel lots. The facility can unload two 150,000 barrel tankers simultaneously; however, it is the company's policy to allow only one vessel to transfer at a time. The size of vessels allowed to enter the Bartow facility is governed by the Tampa Bay Pilots Association. That organization has authorized vessels of up to 675 feet LOA.



No. 2 fuel oil is only used at the facility as an emergency fuel. The Combustion turbines and peakers utilize natural gas as a primary fuel with No. 2 fuel oil as a back-up. The units are tested annually with No. 2 fuel oil to ensure proper operation of the systems if they are required.

1.1 OIL STORAGE AND TRANSFER OPERATIONS

Field-Erected Tanks—The Bartow Site contains a total of three field erected, bulk storage tanks: Tank No. 6 (FDEP Tank No. 11) located in the North Tank Farm; and Tank Nos. 29 and 30 in the South Tank Farm.

Tank No. 6 (FDEP Tank No. 11) stores ASTM D396 Grade No. 2 fuel oil, which supplies the peaker CT's.

Tank Nos. 29 and 30 supply the new CTs and receive oil from the No. 2 fuel oil unloading arm located on the north side of the intake canal. The tanks are double-walled, double floor steel tanks. Tanks are provided with a visual leak detection system and high/low level alarms.

Shop-Fabricated Tanks—Active shop-fabricated storage tanks include the following:

- Two 2,000 gallon Convault® aboveground fuel are stored onsite, one containing unleaded gasoline and the other containing diesel fuel.
- Two Cable Oil Tanks—Two 16,002 gallon mineral oil tanks are housed in a building at the beginning of the transmissions underground cable run.
- Emergency Fire Pump Tank— A single, steel 500 gallon diesel tank services the emergency fire pump. The tank is suspended on stilts on the West, exterior wall of the Plant Services Building.
- Turbine Waste Oil Storage Tanks— Four 550 gallon tanks are used for waste turbine oil. One tank is located at each of the four peaker turbines. Two additional 10,000 gallon waste oil tanks were installed during the re-powering and are located at the new power block.

Drums Storage—Fifty-five gallon steel drums containing used lubrication oil are located inside the Oil & Waste Shed. Drums containing virgin lubrication oil are located inside of the warehouse chemical and oil storage building and on the west side of Unit 2's first floor. A few drums may also be stationed inside or outside the plant as equipment maintenance is being performed. Buckets and cans ranging in size from ½ to 5 gallons are used to transfer oils.

Oil-Containing Equipment—Oil-filled electrical equipment on the plant site includes fourteen transformers (step-up, auxiliary and startup) located on the west side of each unit. The units consist of eight 395 gallon CT transformers, two 12,542 gallon step-up transformers, and four 5,647 gallon mineral oil transformers on the new CT units. The four new combustion turbines have a capacity 3,600 gallons of turbine oil and the one new heat recovery steam generator turbine has a capacity of 5,300 gallons of turbine oil.

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BARTOW CC STATION****EMERGENCY MANAGEMENT GUIDE
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One substation/switchyard is located on the plant site. The 13.8/230KV Unit No. 3 and CT substations/switchyards is located to the west of the steam plant. These substations have SPCC plans developed by their management group.

1.2 OIL RECEIVING

The Bartow Marine Oil Transfer Facility is a complete oil terminal including tanker, barge and truck transfer sites. Vessels are unloaded with two eight-inch unloading arms at the north terminal. The two ten inch unloading arms at the south terminal are out of service. The facility can unload two vessels simultaneously. However, it is the company's policy to allow only one vessel at a time into the slip. The largest vessel allowed, by the Tampa Bay Pilot's Association, is 675 feet LOA.

The No. 2 fuel oil is handled through approximately 300' of 14" diameter and 680' of 6" diameter unloading line to the North Tank Farm and approximately 1,300' of additional line to the new fuel oil tanks. The No. 2 fuel oil line to the North Tank Farm is single-walled where it runs inside the concrete sub-grade trench and is double-walled where it runs underground and over the canal.

The former steam plant has two residual oil unloading stations. The first is located behind the North terminal building and receives tanker trucks. The second unloading station is at the South tank farm's T1 tank.

The truck unloading station is used as-needed during emergency situations. The purpose of the truck loading station is to unload No. 2 fuel oil from Tank No. 6 (FDEP Tank No. 11) to mobile tanker trucks that would transport fuel to other plants in the event there were delivery constraints from vendors after an emergency situation, such as a hurricane or other emergency.

1.3 OIL AND HAZARDOUS SUBSTANCE AND EQUIPMENT INVENTORY

Table A.3-1 is an inventory of field-erected and shop-fabricated storage tanks and other oil-containing devices on site.

All of the field-erected and shop-fabricated tanks described prior comply with the Florida Department of Environmental Protection Regulations' Storage Tank Systems rules, Chapter 62-762 Florida Administrative Code (FAC), and 40 CFR Part 112 that set standards for construction, maintenance, release detection, corrosion protection, system testing and inspections.

2.0 HAZARD EVALUATION

This section presents the facility's evaluation of potential hazards associated with an accidental oil discharge. This evaluation addresses oil spill probability (*i.e.*, likelihood of accident scenario occurrence) and a vulnerability analysis (*i.e.*, impacts of each accident scenario) to arrive at an overall prediction of risk. The scenarios resulting from this hazard evaluation are considered to represent the full range of significant oil spill emergencies for emergency planning purposes.

There is no surface impoundment present that is used for the accumulation of liquid wastes.

2.1 OPERATIONS POSING POTENTIAL SPILL RISK

Analysis of several factors pertaining to the potential for a spill from the tanks indicates a very low probability of a release.

All of the oil storage tanks and their associated piping comply with Florida Administrative Code 62-761, Florida Department of Environmental Protection Above- and Below-Ground Storage Tank Systems rules. Each single-walled field erected tank is internally lined on the bottom and 18 inches up the sides with a glass re-enforced plastic liner and is cathodically protected. The No. 2 fuel oil tanks are all equipped with a continuous leak detection system. Each single-walled tank is within a secondary containment with a volume of at least 110 percent of the tank capacity. Field-erected tanks are maintained and inspected in accordance with API 653 procedures.

The terminal No. 2 fuel oil piping, with short exceptions, is aboveground mounted on supports designed to allow for the expansion and contraction of the pipe. All No. 2 fuel oil pumps are within secondary containment. All No. 2 fuel oil piping in contact with the soil is within a non-corrosive secondary containment in accordance with FDEP requirements.

All marine terminal bulk product piping is underground, double-walled or contained in trenches until it is inside the tank berms. This system maximum allowable working pressure is 100 p.s.i. which is the vessel pump's capacity. Flow check valves to prevent back flow should the offloading arms be damaged protect each unloading system.

The concrete spill containment's around each loading arm, 199 barrels for the north unloading area and approximately 80 barrels for the south unloading area, exceeds the three barrel capacity required by 33 CFR Part 154.530. Any oil leaking into these containments during a transfer will be removed within one hour of the conclusion of the transfer.

The north terminal retains the capability to load a vessel through the offloading arms. A remote control pump shut off switch is located outside the door to the north terminal office. This switch can be used by anyone to stop the flow of oil from the tank to a vessel. Shutdown can occur well within the 60 seconds required by 33 CFR 154.550 (c).

Each of the transfer pumps used for vessel loading is equipped with a 100 p.s.i. relief valve on the discharge side. If tripped it isolates the vessel and establishes a re-circulation of the oil.

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A monthly examination of all tanks, piping, and containments is conducted in accordance with Chapters 62-761, 62-762, F.A.C. and 40 CFR 112. The No. 2 fuel oil tanks are examined weekly by the combustion turbine employees. All test and inspection records are retained at the facility for the time frames required by regulation.

2.2 SPILLS FROM NATURAL OCCURRENCES

The potential for two natural occurrences exists at the site. A lightning strike could cause a leak in one of the tanks or cause a weakening of joints or welds, which could be the cause of future leaks. The tank inspection program should reveal any developing problems of this nature. A hurricane is also very real possibility. A worst-case storm surge is predicted to be 17 feet above normal at the site. This would be sufficient to top the berms and fill the tank containment. It is company policy to keep inventories high during hurricane season, which should keep the tanks from floating during a storm surge. If a tank failure occurs during a hurricane, a response will not immediately be mounted. After the storm, when it is safe for personnel, a recovery effort will be mounted using the oil spill recovery guide.

2.3 PLANNING DISTANCE

By definition, the planning distance is the distance that oil would travel as a result if a worst-case spill from the largest storage facility during a 27-hour time interval (40 CFR 112.20, Appendix C, Attachment C-III). Per 33 CFR 154.1035, the procedures contained in EPA's regulations on Oil Pollution Prevention at 40 CFR 112, Appendix C, Attachment C-III may be substituted for the distances listed in non-tidal and tidal waters.

The prediction of oil flow over land does not allow for consideration of secondary containment, although natural and manmade barriers to flow are allowed (40 CFR 112.20, Appendix C, Section 5.0). The worst-case discharge volume for this storage facility is the capacity of the largest single oil tank, (b) (7)(F)

For non-persistent oils discharged into tidal waters, the planning distance is 5 miles from the facility down current during ebb tide and to the point of maximum tidal influence or 5 miles, whichever is less, during flood tide (40 CFR 112, Appendix C, Attachment C-III assumption).

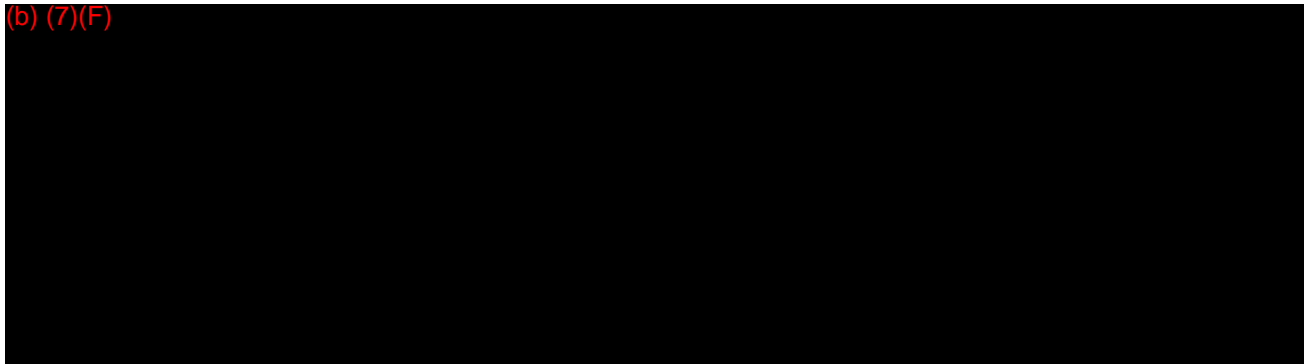
2.4 SPILL HISTORY

A review of spill records showed seven reported incidents since 1990. None of these incidents originated from a storage tanks system or a fuel oil transfer system; however, several resulted in a penalty being issued by the USCG. These spill incidents are summarized on Table 2.5-1.

3.0 VULNERABILITY ANALYSIS—OIL

The following have been considered as part of a vulnerability analysis for the Bartow complex. Detailed descriptions of actions to be taken to protect these areas can be found in other sections of this guide. Table A.3-2 summarizes the level of vulnerability for various locations.

(b) (7)(F)



4. Residential Areas— No private residences are located within range of an overland discharge. There are numerous private residences on Tampa Bay both up and down current of the plant; these residents could potentially be affected should a spill occur.
5. Business—Several marinas are located on the Gandy Causeway about 1.5 miles from the plant. The St. Petersburg waterfront is 6 miles to the south and an area of heavy marine industry is on the opposite side of the bay about 2 miles away. All of their waterfront operations could be closed during a spill.
6. Wetlands or other sensitive environments—The USCG MSO Tampa Oil and Hazardous Substance Area Contingency Plan has designated mangrove, sea grass, and salt marsh as sensitive. All of these environments occur adjacent to the complex. See Section III Annex 2, Attachment 2 for additional information.
7. Fish and Wildlife—Tampa Bay holds several wildlife habitats and breeding areas that must be protected. These areas have been identified in the USCG MSO Tampa Area Contingency Plan.
8. Lakes and Streams – No lakes or streams will be affected.
9. Endangered Flora and Fauna – See Annex 2, Attachment 2 for additional information.
10. Recreation areas –Tampa Bay is a major recreational area.
11. Transportation Routes—Several varieties of water traffic could be affected by a spill into Tampa Bay. A catastrophic release could close several of the shipping channels in the bay. These closings would affect the ports of Tampa, Old Port Tampa, Manatee, and St. Petersburg. No land or air routes would be affected.
12. Utilities – The P.L. Bartow plant, to the north, could be affected by a catastrophic oil spill.

4.0 DISCHARGE SCENARIOS

This section provides additional information on discharge scenarios that are used to determine the response measures described in Annex 2.

The Bartow facility is a “complex” defined by the Oil Pollution Act of 1990, because it is regulated by the USCG, USEPA, and USDOT. Hence the planning volumes for a worst case discharge, maximum most probable (medium) discharge and average most probable (small) discharge must be compared pursuant to both the USCG and EPA requirements.

The largest tank on (b) (7)(F), has been used to calculate the planning volumes for the non-transportation-related part of this complex. The total volume of all pipe associated with the transportation related part of this complex, 453 barrels (19,026 gallons), is the planning volume for the transportation related portion of this complex.

4.1 SMALL AND MEDIUM DISCHARGES

This section provides a description of the small and medium discharge scenarios in order to establish the required response resources according to EPA regulation procedures (40 CFR 112, Appendix E). The EPA and USGG regulate the Bartow facility. The higher of the planning volumes for a small discharge and medium discharge are as follows:

Small Discharge—A small discharge is defined as any spill volume less than or equal to 2,100 gallons, but not to exceed the calculated worst-case discharge. Therefore, small discharges for the facility are those discharges less than or equal to 2,100 gallons (40 CFR 112.20[h][5]).

Medium Discharge—The medium discharge is 36,000 gallons or 10 percent of the worst-case discharge, whichever is less (40 CFR 112.20[h][5]). As 10 percent of the worst-case is (b) (7)(F), the medium discharge for the storage area is 36,000 gallons. The USCG “maximum probable discharge” is (b) (7)(F).

4.1.1 Marine Transfers

The most probable source of a small or medium discharge will be a vessel to tank transfer. Wind associated with squalls, mostly during the summer, can be quite high and may cause a vessel mooring system to fail. The sudden movement of a ship or barge could break the transfer system at the ship or break the offloading arm assembly. The largest vessel can deliver oil at about 12,000 barrels per hour. Even with a one-minute lag between incident and shutdown, 200 barrels (8,400 gallons) could be lost. While oil is being received from a ship or barge, the slip is closed with a boom in accordance with state regulations. Hookup is not permitted until the boom is in place. The boom is not removed until the transfer arms are disconnected. Should oil be spilled into the water during a receipt, the oil would normally be contained within the slip because of the boom, wind, and current. The prevailing winds are from the east and would push the oil into the slip throughout most of the year. A 0.5 knot current into the slip, caused by the plant cooling water intakes, would also help hold the oil in. A permanent boom is in place to deflect debris and oil away from the intakes.

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Oil transfers from vessels are conducted in accordance with the USGS Operations Manual and the Duke Energy Oil Transfer Operations Manual.

4.1.2 Tank to Tank Transfers

Tank to tank transfers may occur on occasion when the peakers are in operation. Oil is drawn from either Tank No. 29 or No. 30 and is delivered to Tank No. 6 (FDEP Tank No. 11). All piping associated with these operations is within the tank berms or within pipe trenches. The transfer pumps are located in the North Terminal Building. These pumps are within a secondary containment that will hold approximately 100 barrels. In addition, the North Terminal Building has been equipped with "speed humps" at selected doors which would direct any oil escaping the building into the site pipe trench which has a capacity of several thousand barrels. Operations personnel check active transfers at least every hour. A catastrophic failure of the tank to tank system could discharge 4,200 barrels within the hour.

4.1.3 Tank to Plant Transfers

A tank to plant transfer occurs only in an emergency situation due to loss of natural gas. Tank to plant transfers are also conducted at least once annually to test the systems for proper operation. The fuel forwarding pump skid for the No. 2 fuel oil consists of five (5) pumps that transfer fuel oil from the tanks to the CT fuel oil pumps. Each fuel oil forwarding pump is sized to deliver the maximum fuel flow required for one CT. The fifth pump serves as backup and will run only in the event that one of the other pumps is out of service. The forwarding pumps have a design flowrate of 320 gpm, therefore delivering 19,200 gallons (457 barrels) in an hour.

4.1.4 Maintenance

These are rare due to standard housekeeping practices. All piping, valves, pumps, etc. are drained before maintenance is performed. Even after draining, portable containment is placed to catch residual oil. If a small spill should occur during maintenance, the oil would fall on concrete floors in the plant and on paving outside the plant. The exception to this is the areas inside the tank berms and leading to the pipeline which is sandy soil.

4.1.5 Leaking Storage Tank

All single-walled fuel storage tanks are within individual berms. These berms have a capacity of at least 110 percent of the tank capacity. Small leaks would remain inside the berms and fall on the sandy soil. The site is built on a dredge fill area making the underlying aquifer brackish and non-potable. No. 2 fuel oil spilled inside the berm could potentially reach groundwater but would not affect any potable aquifer.

The double-walled tank systems will hold the entire contents of the inner tank; allowance for rainwater accumulation and the permeability of surrounding soils are not applicable to these systems.

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4.2 WORST CASE DISCHARGE
Worst Case Discharge— (b) (7)(F)

(b) (7)(F) of No. 2 fuel oil, which represents the catastrophic failure of Tank No. 6 (FDEP Tank No. 11). The worst case discharge planning volume calculation for Bartow's oil storage facility is as follows:

Secondary Containment--Multiple Tank Facilities	
1. Are all aboveground oil storage tanks or groups of aboveground oil storage tanks at the facility without adequate secondary containment?	No
2. If the answer is yes, the final worst case discharge planning volume equals the total aboveground oil storage capacity at the facility.	Not applicable
3. If the answer is no, calculate the total aboveground oil storage capacity of tanks without secondary containment. If all aboveground oil storage tanks at the facility have adequate secondary containment, enter "0" (zero).	0
4. Calculate the capacity of the largest single aboveground oil storage tank within adequate secondary containment area or the combined capacity of a group of aboveground oil storage tanks permanently manifolded together, whichever is greater, plus the volume from Question 3 above.	(b) (7)(F)

It is difficult to imagine the total contents of a tank escaping the tank and the secondary containment. Some possible causes could be lightning strikes, tornadoes or sabotage. Hurricanes are a very real possibility. A response during a hurricane will not be possible and to predict where the oil will be after a storm and in what concentration is not possible. For the purposes of this guide, it is assumed that a tank simply falls down and all of its contents wash through the berm.

A catastrophic release of oil could enter Tampa Bay to the north, east or south of the plant. There is less than 100 feet between the berms and the bay in any of these directions.

The tides and wind will control oil in the bay, beyond the intake and discharge canals. DEF intends with this guide and using the OSRO to deflect this oil into the strong tidal current that follows the deep water near the center of this portion of the bay. The oil, moving with the tide, will move away from the sensitive mangrove and sea grass areas surrounding the plant. This approach will allow more time to marshal recovery assets while reducing environmental impact.

5.0 RESOURCES FOR DISCHARGE SCENARIOS

Facility response capability is limited to a first containment response using containment boom and sorbent materials. SWS has been retained for recovery and cleanup efforts beyond the on-site capabilities. The protection of sensitive environmental areas will be accomplished by facility personnel and/or by SWS's emergency response personnel by blocking off the flow of oil leading to sensitive environments.

5.1 RESPONSE RESOURCES FOR SMALL AND AVERAGE MOST PROBABLE DISCHARGES

As defined by the U.S. EPA and USCG, small discharges are considered to be any spill volume less than or equal to 2,100 gallons. Detection of a small discharge is immediately relayed to the QI and other appropriate plant personnel who are responsible for setting the oil spill response plan into action. Notification to the OSRO in a timely manner is essential.

Oil recovery devices (ORDs) would be used by the OSRO such as pumps and skimmers to appropriately meet the daily recovery rate for a small discharge. DEF's OSRO is able to deploy vacuum trucks and/or additional recovery devices within three hours of spill discovery. Prior to the OSROs arrival, the facility will contain/control the migration of spilled oil by damming off conveyance systems leading to the wetlands or retention pond discharge and implementing other defensive measures.

5.2 RESPONSE RESOURCES FOR MEDIUM AND MAXIMUM MOST PROBABLE DISCHARGES

As defined by the U.S. EPA, the medium discharge is determined to be 36,000 gallons. The USCG maximum probable discharge is 50,400 gallons. These discharges exceed the facility's cleanup capability. The oil recovery devices (ORDs) available through SWS are able to arrive on-scene within the time specified for the applicable response tier. The throughput rate of the ORDs exceeds the minimum 50 percent of the medium discharge, or 18,000 gallons per day.

The recovery rate of ORDs provided by SWS is highly variable, depending on such factors as the area and thickness of the spill, degree of containment, and weather conditions. The recovery rate for ORDs ranges between 100 to 400 gallons per minute, or 144,000 to 576,000 gallons per day oil recovery.

By conservatively using the average throughput of this range, and assuming a 10-hour operating time, the effective daily recovery rate is: $R = D * U$, where:

- R is the effective daily recovery capacity
- D is the average oil recovery rate
- U is hours per day that equipment can operate under discharge conditions

Then, $R = [(250 \text{ gallons/minute}) * (60 \text{ minutes/hour})] * (10 \text{ hour/day}) = 150,000 \text{ gallons/day}$.

5.3 RESPONSE RESOURCES FOR WORST-CASE DISCHARGES

The worst-case discharge is determined to be (b) (7)(F). The OSRO is able to be on-scene within two hours with sufficient equipment and resources to address a worst-case spill. An OSRO equipment list is provided in Annex 2, Attachment 1.

(b) (7)(F)

7.0 CONTAINMENT AND DRAINAGE PLANNING

The spill control containment surrounding each of the aboveground oil tanks is sufficient to hold the complete contents of the tank plus precipitation from the 25-year, 24-hour storm event. This represents 110 percent of the tank capacity. The federal SPCC rule (40 CFR 112) and Chapter 62-762, F.A.C. requires drainage of rainwater accumulation from the secondary containment. Accumulated storm water in the North Tank Farm is pumped to an empty berm for percolation and evaporation. Tanks 29 and 30 in the South Tank Farm are double-walled and thus do not accumulate rainwater.

Storm water over most of the site dissipates as surface runoff and flows into the bay. A roadside storm drain system that exists in the immediate vicinity of the plant would direct water, oil, or chemicals to the intake or discharge canal or directly into Tampa Bay.

Additional containment and drainage measures are covered in the plant's *Spill Prevention, Control and Countermeasure* (SPCC) Plan prepared as a separate stand-alone document.

8.0 DISCHARGE DETECTION SYSTEMS

Visual inspections of plant facilities, systems, tanks, pipelines and storage areas occur on a regular basis. Plant operations and security personnel are required to make routine rounds that include all storage tank areas as part of their daily job responsibilities. Operators are required to make regular rounds during a transfer, inspecting tanks, pipe, and fittings to detect leaks of any kind. All leaks are reported to the Emergency Action Coordinator who will initiate necessary actions.

Monthly inspections are required by 62-762 F.A.C. for the aboveground and underground storage tanks and associated integral piping to determine if a discharge has occurred or if conditions exist that could potentially cause a discharge. A checklist is completed monthly to document the condition of the aboveground storage tanks. These tank checklists are included in the SPCC Plan.

(b) (7)(F)

**9.0 HAZARD IDENTIFICATION: CHEMICALS**

Sulfuric acid, sodium hydroxide, aqueous ammonia, caustic soda, Steamate NA 1321, Corrshield NT4201 and hazardous wastes are stored in bulk or accumulated as waste at the Bartow Plant. The facility also stores gaseous products onsite including butyl mercaptan, oxygen, and hydrogen. They are identified in Table A.3-4 based on one or more of the following factors: toxicity, reactivity, corrosivity, flammability, quantity, and probability of release.

10.0 BARTOW/ANCLOTE (B/A) PIPELINE HAZARD IDENTIFICATION: OIL**10.1 PHYSICAL DESCRIPTION**

The B/A Pipeline transports residual fuel oil from the receiving facility on Tampa Bay to the Anclote power plant near Tarpon Springs. The heated oil is pushed through a 14-inch by 33-mile pipeline that has a capacity of 31,000 barrels. The line is within one response zone and is maintained in accordance with DOT standards. Twenty-nine miles are located within Pinellas County Florida with the remaining four miles within Pasco County Florida. A summary of the pipeline characteristics is provided in Table A.3-5.

10.2 OPERATION

Normal flow varies between four barrels per minute and a maximum 33 barrels per minute. A minimum of four barrels per minute (15 p.s.i.) is necessary to hold the fail-safe valves open. Normal temperature and pressure in the line is 150°F and up to 850 p.s.i. at the injection point and 130°F and less than 200 psi at the discharge.

(b) (7)(F)



10.4 MANAGEMENT

The operation and maintenance of the B/A Pipeline is performed by the Bartow Pipeline Fuel Technicians. Additional pipeline support is provided by:

- Pipeline Supervisor and the Pipeline Integrity Management Coordinator—Assures compliance with Federal and State regulations and engineering standards.
- Telecommunications—The Telecommunications group and the System Protection and Control group have responsibility for telephone, relay, and other related equipment used to provide information to the operators of the pipeline.
- Fossil Generation South Region Engineering—Engineering provides assistance as requested.
- Environmental Services Section—Provides regulatory guidance and updates as requested.

10.5 ENVIRONMENTAL SENSITIVITIES AND PROTECTION

The pipeline passes under or adjacent to fourteen bodies of water which are, by definition, navigable. The mangrove forests and marshes on the adjoining shore lines of the saltwater bodies and on the shorelines of the saltwater bodies into which the fresh water creeks flow, have been described as sensitive in Annex E Appendix V of the USCG MSO Tampa ACP and Annex F of the Federal Region IV ACP. Because of these environmentally sensitive areas, DEF has determined that this pipeline meets the criteria for a *Substantial Harm* facility.

The entire 33 miles of the pipeline is considered capable of affecting High Consequence Areas (49CFR195.450) and therefore is covered by a Pipeline Integrity Management Program per 49CFR195.452.

The pipeline fail safe valves protect these sensitive areas. Five tidal culverts on the Bartow plant property, the R&J Canal crossing, and the Pine Rush Villas crossing are protected by (b) (7) (F). Cross Bayou Canal is protected by (b) (7)(F) Long Branch Creek by (b) (7)(F), and Allen Creek by (b) (7)(F). The Alligator Creek crossing is protected by fail safe valves (b) (7)(F) line between (b) (7)(F) runs adjacent to the Anclote River. (b) (7)(F) protect the tidal culvert approximately .25 miles south of the river crossing and the Anclote River crossing. The final crossing, protected by (b) (7)(F), is under a tidal storm drain ditch at Dukes Marina located approximately one half mile from the Anclote plant.

10.6 SPILL HISTORY

The pipeline has no reportable spill history.

10.7 DISCHARGE SCENARIOS

10.7.1 Spill On Land With Possible Fire

The DEF pipeline transports No. 6 fuel oil from the Bartow Plant (St. Petersburg, Florida) to the Anclote Plant (Holiday, Florida). No. 6 fuel oil has a very low vapor pressure with a very high flash point and should not release any gas when exposed to the atmosphere should a pipeline leak occur. The product is considered a low safety risk as identified in CFR 49 §195 Appendix C Section III Product Indicator. Due to the physical properties of the pumped fluid, the likelihood of a fluid spill on land with a resulting pool fire and/or vapor cloud fire/explosion is deemed extremely remote and is not considered as a viable leak/spill scenario.

10.7.2 Spill On Land

Due to the population density in this area, the pipeline's proximity to Old Tampa Bay, the Gulf of Mexico, and an abundance of environmentally sensitive areas, a rupture at any point could affect an high consequence area (HCA). (b) (7)(F)

[REDACTED]. The estimated worst case leak is extremely conservative and does not take into account prompt operator detection and action, the high pour temperature of the #6 oil or elevation changes. An actual release from a pipeline segment would probably be much smaller because the drain down would be constrained by vacuum lock resulting from the closing of pipeline isolation valves and differential in pipeline elevation avoiding a siphon effect. Data is provided in the results portion of this report for each pipeline segment and for shutdown times of 5 minutes and 60 minutes.

10.7.3 Spill On Watercourse

Spills on any of the moving waterways could affect various HCA's and analysis results show that Old Tampa Bay or the Gulf of Mexico could be impacted. The pipeline crosses a total of 23 individual rivers, creeks, streams, marshes, swamps, or ponds and the entire length of the pipeline is in close proximity to Old Tampa Bay or the Gulf of Mexico. The rivers, creeks and streams flow constantly but the flow rate may vary seasonally and due to local weather conditions. Detailed travel distances are included in the Results section of this report.

10.8 WORST-CASE DISCHARGE

This section provides an analysis of the worst-case discharge as required by 49 CFR 194.105. The information was obtained from the B/A Pipeline *Overland Flow and Water Borne Transport Analysis Report, Revision 1*, prepared April 2008 by DEF consultant RCP.

10.8.1 Methodology

The worst case leak scenario for each section of pipe was analyzed. The length of line pipe between each mainline valve was considered a segment for analytical purposes.

The worst case leak assumes the loss of the entire volume of each isolated portion of each pipeline section and the volume pumped prior to leak detection and shutdown. The shutdown times used for this analysis are 5, 15, 30 and 60 minutes.

The estimated worst-case leak is extremely conservative and does not take into account prompt operator detection and action, rapid spill response, or elevation changes (for example product would pool in a low spot and drainage from the pipeline could be reduced due to high portions of the pipeline). An actual release from a pipeline segment would probably be much smaller because the drain down would be constrained by vacuum lock resulting from the closing of pipeline isolation valves and differential in pipeline elevation avoiding a siphon effect.

10.8.2 Comparison of Spill Volumes for Various Shutdown Times

Maximum spill volumes for various possible shutdown times were established and the reduction in spill volume due to shorter leak detection and shutdown times were compared. Tables A.3-6 and A.3-7 include the estimated spill volume comparing the shorter shutdown times with a worst-case 60 minute shutdown time and the percent reduction in spill volume.

10.8.3 Overland Spill

No. 6 fuel oil is a mixture of heavy residual oil, which is blended with lighter oils to meet necessary specifications for viscosity, pour point, and API gravity. It is a thick, syrupy, black, tar-like liquid. Due to its physical characteristics, the leak scenarios postulated were based on a commodity depth of 1-inch. The spilled liquid is assumed to form into an elliptical shape on the ground and flow away from the rupture point. The ellipse aspect ratio (shorter axis/longer axis) used was 1 to 3. It is assumed that no product is absorbed into the soil and the flow of the spill is not impeded by vegetation.

Dimension A listed in Tables A.3-8 and A.3-9 runs axially along the pipeline (the shorter axis of the ellipse) and dimension B is perpendicular to the ellipse (the longer axis of the ellipse). The dimensions of a 5-minute shutoff spill are listed in Table A.3-8, and 60-minute shutoff in Table A.3.9.

10.8.4 Waterway Spill

The DEF pipeline crosses a total of 23 individual rivers, creeks, streams, marshes, swamps, or ponds. These were identified on the Duke Energy alignment sheets. The pipeline also crosses several ditches that are normally dry (flow with rainwater run off).

The procedure found in 40 CFR §112 Appendix C was used to determine the spill movement planning distance. Appendix C specifies the time required for spill response: 15 hours (12-hour arrival time and 3-hour deployment time – the time interval specified for a higher volume port area) was used in the calculations. DEF has contracts with emergency responders that should significantly reduce the response time relative to the worst-case response timeline.

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DEF has a contract with SWS (an emergency response company). They would have personnel on site within ONE hour and equipment is warehoused an hour from the pipeline. This faster response would significantly reduce the travel distance of a spill. Spills on tidally influenced rivers and creeks were analyzed as both tidally influenced bodies of water and as flowing streams or rivers. Spills on any of the moving waterways could impact Old Tampa Bay or the Gulf of Mexico.

Tables A.3-10 and A.3-11 show planning distances for still water. The B/A Pipeline passes over or through several ponds, lakes, marshes, or swamps. These calculations take into account the spread of oil over the surface of the water and the movement of the oil slick due to local winds. (These calculations are based on 40 CFR §112 Appendix C Attachment III section 3.0.) Spill volumes influence the planning distances; therefore, both the 5-minute shutdown volume and the 60-minute shutdown volume were analyzed.

Table A.3-12 looks at oil transport distances on tidally-influenced waters, which are also flowing. The maximum spill travel distance obtained (tidally-influenced or flowing) is used for planning (40 CFR §112 Appendix C Attachment III section 1.4.). 40 CFR §112 Appendix C Attachment III section 4.0 and 2.0 are used to make these calculations.

Table A.3-13 looks at oil transport distances on flowing water. The 40 CFR §112 Appendix C Attachment III section 2.0 is used to make these calculations.

TABLE A.3-1. TANK INVENTORY

**Table 1: Duke Energy Florida Storage Tank Inventory
P.L. Bartow Station Listing of Active Tanks**

(b) (7)(F)

ID NUMBER	DIAGRAM NO.	LOCATION	CONTENT	2nd CONTAIN	STATUS - IN USE?	YEAR BUILT / REBUILT	DEP TANK #	COMMENTS	
01	1B	COMBUSTION TURBINES (CTs)	WASTE OIL	Y	Y		23	REPLACEMENT TANKS	
02	1B	COMBUSTION TURBINES (CTs)	WASTE OIL	Y	Y		24	REPLACEMENT TANKS	
03	1B	COMBUSTION TURBINES (CTs)	WASTE OIL	Y	Y		25	REPLACEMENT TANKS	
04	1B	COMBUSTION TURBINES (CTs)	WASTE OIL	Y	Y		26	REPLACEMENT TANKS	
06	1B	NORTH TANK FARM	#2 FUEL OIL	DIKE	Y	1971	11	PEAKER FUEL TANK - STRF 1/12/94	
	1B	EMERGENCY FIRE PUMP	#2 FUEL OIL	Y	Y	2008	na		
12	1A	BARTOW PLANT #14	NEUTRALIZ'N WATER		Y	--	--		
13	1B	BARTOW SUBSTATION #1	CABLE (mineral) OIL	Y	Y	--	--	U.G.TRANSMISSION -SUN #6 OIL	
14	1B	BARTOW SUBSTATION #2	CABLE (mineral) OIL	Y	Y	--	--	U.G.TRANSMISSION -SUN #6 OIL	
20	1B	CT'S STEP-UP TRANSFORMERS	TRANSFORMER OIL	Y	Y	--	--		
21	1B	CT'S STEP-UP TRANSFORMERS	TRANSFORMER OIL	Y	Y	--	--		
22	1B	CT'S TRANSFORMERS	TRANSFORMER OIL	Y	Y	--	--	8 individual transformers for CT power	
25	1A	STEAM PLANT - OIL & WASTE SHED	USED LUBRICATION OILS	Y	Y	--	--	55 GALLON DRUMS, 6 drums on average (330 gal), storage located in-doors	
28	1A	WAREHOUSE SHED	LUBRICATION OILS	Y	Y	--	--	Enitre plant floor & drains = containment	
29	1A	WAREHOUSE	GASOLINE AST	Y	N	--	--	REGISTERED 9/03	
30	1A	WAREHOUSE	DIESEL AST	Y	N	--	--	REGISTERED 9/03	

¹ 1 BBL = 42 gallons

All secondary containment volume confirmation was performed by PGN using GPS / GIS analysis and mapping.
State Tank Registration No.: 528624602

OFE

ID NUMBER	DIAGRAM NO.	LOCATION	CONTENT	(b) (7)(F)									
				CONTAINMENT	CONFIG	STATUS - IN USE?	SPILL CONTAINMENT	OVERFILL	YEAR BUILT / REBUILT	DEP TANK #	RELEASE DETECT	INT COAT	CATHODIC PROTECT
31	1B	CT TRANSFORMER	MINERAL OIL	Y	EQUIPMENT	Y	Y	NA	2008	--	Y	N	
31	1B	CT TRANSFORMER	MINERAL OIL	Y	EQUIPMENT	Y	Y	NA	2008	--	Y	N	
31	1B	CT TRANSFORMER	MINERAL OIL	Y	EQUIPMENT	Y	Y	NA	2008	--	Y	N	
31	1B	CT TRANSFORMER	MINERAL OIL	Y	EQUIPMENT	Y	Y	NA	2008	--	Y	N	
		CT TRANSFORMER	Waste Oil	Y		Y	Y	NA	2008	--	Y		
		CT TRANSFORMER	Waste Oil	Y		Y	Y	NA	2008	--			
32	1B	S. SIDE INTAKE CANAL	NO. 2 FUEL OIL	Y	DB-WALL AST	Y	Y	Y	2008	29	Y	Y	Y
32	1B	S. SIDE INTAKE CANAL	NO. 2 FUEL OIL	Y	DB-WALL AST	Y	Y	Y	2008	30	Y	Y	Y
	1B	Combustion Turbine (CT)	Used Turbine Oil	Y		Y	Y	NA	2008	--			
	1B	Combustion Turbine (CT)	Used Turbine Oil	Y		Y	Y	NA	2008	--			
	1B	Combustion Turbine (CT)	Used Turbine Oil	Y		Y	Y	NA	2008	--			
	1B	Combustion Turbine (CT)	Used Turbine Oil	Y		Y	Y	NA	2008	--			
	1B	Combustion Turbine (CT)	Used Turbine Oil	Y		Y	Y	NA	2008	--			

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TABLE A.3-2. SPILL HISTORY

Date(s)	Description of Incident
9-26-90	Approximately four gallons of lubricating oil spilled onto the floor of the plant during a maintenance operation. The oil flowed into a floor drain that discharged to a control sump. Normally the sump discharges to an oil water separator but due to an unusual amount of water being discharged during a plant startup the sump overflowed. The overflow found its way to a storm drain and a portion of the original four gallons caused a sheen on the waters of Tampa bay. Plant personnel recovered the sheen with sorbents.
9-24-92	A temporary transfer line established to move water and COM (powdered coal and #6 oil) from an out of service tank to a disposal point parted and discharged approximately one gallon of COM and some water to a paved surface. The paved surface was within the truck offloading area and the fluid flowed to the sump. A seal within the sump failed, COM leaked, and sheen was caused on the water. Plant personnel used sorbents to recover the sheen. The seal was repaired. To avoid future occurrences the seal was placed into the PM schedule.
3-24-92 4-24-92	A two hydraulic oil tank associated with a grass removal system leaked due to corrosion. Drops of oil caused sheen on the water. The repair after the 3-24 incident was not effective and the tank leaked a few more drops on 4-24. The tank was replaced after this incident. In both cases the sheen was so light recovery was impossible.
9/24/01	Less than 1 cup of hydraulic fluid was leaked in a tidal marsh along the pipeline due to a hydraulic hose burst on a marsh master tractor that was performing vegetative maintenance. The marsh tractor is owned by Progress Energy and leased to the contractor performing the work. The tractor's hoses and oil bearing equipment will be inspected prior to each use in the future. No penalty was issued by the USCG.
2/18/03	Hydraulic oil leaked from a loose fitting on the plant's grass rake to waters of the State causing small drop-like sheens. The total quantity of hydraulic fluid reaching the water is estimated at less than ¼ cup. Teflon tape was applied to the threads on the fitting and it was tightened back up. A quarterly PM was put into place to inspect all hoses and oil bearing equipment on the grass rake. No penalty was issued by the USCG.
5/29/03	Hydraulic oil leak from a loose hose fitting on the plant's grass rake to waters of the State causing small drop-like sheens. The total quantity of hydraulic fluid reaching the water is estimated at less than ¼ cup. This leak was in a different location than the 2-18-03 leak. Due the reoccurrence of leaks, the grass rake was taken out of service. A new grass rake or re-engineered grass rake will replace the 40+ year old rake.
2/4/04	At approximately 15:30 the plant Environmental Specialist discovered #6 fuel oil dripping from the flange of a north terminal unloading arm. The unloading arm was not in use at the time of discovery. An estimated 1 gallon of oil dripped into the unloading arm containment area and an estimated ¼ cup of oil entered the intake canal. As the oil dripped the wind would occasionally blow a drop outside the containment area and into the intake canal. ESS was notified of the spill and reported it to the National Response Center. The flange was wrapped with oil absorbent pads and visqueen. The oil in the containment area was cleaned up with oil absorbents. The oil drop sheens dissipated within minutes of entering the water and were unrecoverable. The duration of the leak is unknown, but suspected to be less than 24 hours in length. The unloading arm was last used on Saturday, January 31, 2004 to unload barge DBL 152. The barge tankerman are responsible for removing the flange to begin the unloading and securing the flange when the unloading is complete. A Fuel Technician that assisted with the unloading of DBL 152 stated he saw a single drop or two fall from flange immediately after the disconnect, but nothing afterwards. A loose flange was determined to be the cause of the leak. The barge tankerman did not properly secure the flange after unloading was complete. No penalty was issued by the USCG.

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TABLE A.3-3. VULNERABILITY ASSESSMENT SUMMARY

LOCATION	NA	LOW	MEDIUM	HIGH
Water intakes (drinking, cooling, other)		X		
Schools		X		
Medical Facilities	X			
Residential Facilities			X	
Businesses				X
Wetlands/Other Sensitive Environments				X
Fish and Wildlife				X
Lakes and Streams		X		
Endangered Flora and Fauna				X
Recreational Areas				X
Transportation Routes (air, land, water)				X
Utilities				X
Other Areas of Economic Importance (e.g., beaches, marinas) Including Ter- restrially Sensitive Environments, Aquatic Environments, and Unique Habitats			X	

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TABLE A.3-4. HAZARD IDENTIFICATION: CHEMICALS
Sodium Hydroxide (Liquid)

Location	Storage Tank, East of Demineralizer Room
Quantity	49,000 lb. (Average)
Physical Properties	Colorless to White, Liquid. Odorless
Routes of Exposure	1.) Respiratory 2.) Skin 3.) Ingestion 4.) Eyes
Permissible Exposure Limit	2 mg/m ³ (ceiling)
IDLH	10 mg/m ³ (NIOSH)
Reportable Quantity	1,000 pounds (57 gallons)

Aqueous Ammonia (Liquid)

Location	Storage Tank, East and West of CT's
Quantity	30,000 gallon. (Average per tank)
Physical Properties	Colorless to White, Liquid. Odorless
Routes of Exposure	1.) Respiratory 2.) Skin 3.) Ingestion 4.) Eyes
Permissible Exposure Limit	2 mg/m ³ (ceiling)
IDLH	10 mg/m ³ (NIOSH)
Reportable Quantity	1,000 pounds (57 gallons)

Steamate N1321 (Liquid)

Location	Power Block 4 Water Treatment Containment Area
Quantity	2,170 pounds
Physical Properties	Colorless to White, Liquid. Odorless
Routes of Exposure	1.) Respiratory 2.) Skin 3.) Ingestion 4.) Eyes
Permissible Exposure Limit	2 mg/m ³ (ceiling)
IDLH	10 mg/m ³ (NIOSH)
Reportable Quantity	1,000 pounds (57 gallons)

Mercaptan (Liquid)

Location	Power Block 4 Water Treatment Containment Area
Quantity	
Physical Properties	Colorless Liquid. Gas-like Odor
Routes of Exposure	1.) Respiratory 2.) Skin
Permissible Exposure Limit	N/A
IDLH	N/A
Reportable Quantity	N/A

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Hydrogen (Gas)

Location	East Side of Power Block
Quantity	
Physical Properties	Colorless Gas. Odorless
Routes of Exposure	1.) Respiratory
Permissible Exposure Limit	N/A (Simple Asphyxiant)
IDLH	N/A (Simple Asphyxiant)
Reportable Quantity	N/A

Typical Hazardous Wastes Generated

Solvent Contaminated Rags	Spent Batteries (Universal Waste)
Partially Filled Aerosol Cans	Spent Fluorescent Bulbs (Universal Waste)
Paint Related Wastes	Mercury Containing Devices (Universal Waste)
Corrosive Liquids	
Flammable Liquids	

* IDLH: Immediately Dangerous to Life or health

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TABLE A.3-5. PIPELINE INFORMATION

Pipeline Information	Data
Route	Bartow to Anclote Pinellas and Pasco Counties, Florida
Service	#6 Fuel Oil
Pipe Size	14-inch O.D.
Wall Thickness ³	0.250-inch
Material of Construction ⁴	API 5LX-X52 (High Frequency ERW)
Length	33.3 miles
MOP	1080 psig
Maximum Flow Rate	39 barrels/minute
Normal Flow Rate	Varies
Normal Operating Pressure	200 psig

(b) (7)(F)

Terrain	Flat to gently rolling close to coast significant distances close to sea level
Shutdown Time	5 to 60 minutes
Time from Notification Until Emergency Responders Arrive at the Site	1 hour Equipment locate 1 hour from pipeline

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(b) (7)(F)



(b) (7)(F)



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TABLE A.3-8. SPILL DIMENSIONS FOR 5 MINUTE SHUTDOWN TIMES

(b) (7)(F)	AREA OF SPILL (FT ²)	WIDTH OF SPILL AXIALLY ALONG PIPELINE (A) (FEET)	LENGTH OF SPILL PERPENDICULAR ALONG PIPELINE (FEET)
	280,582	343	1,040
	278,133	342	1,036
	67,077	168	509
	197,397	288	873
	24,374	101	307
	301,077	356	1,078
	271,809	338	1,024
	464,769	442	1,339
	60,357	159	483
	33,957	119	362
	261,921	332	1,005

TABLE A.3-9. SPILL DIMENSIONS FOR 60 MINUTE SHUTDOWN TIMES

(b) (7)(F)	AREA OF SPILL (FT ²)	WIDTH OF SPILL AXIALLY ALONG PIPELINE (A) (FEET)	LENGTH OF SPILL PERPENDICULAR ALONG PIPELINE (FEET)
	425,117	423	1,281
	422,643	421	1,277
	211,587	298	904
	341,907	379	1,149
	168,884	266	807
	445,587	433	1,311
	416,319	418	1,267
	609,279	506	1,533
	204,867	293	889
	178,467	274	830
	406,431	413	1,252

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TABLE A.3-10. STILL WATER SPILL DISTANCES (5 MINUTE SHUTDOWN TIME)

WATERWAY	(b) (7)(F)	RADIUS OF SPILL (MILES)	SLICK SPEED (MPH)	TOTAL SPILL TRAVEL DISTANCE (15-HOUR)	RESULTS
Cypress Swamp		2.16	0.24	5.76	Spill will cover entire enclosed body of water
Unnamed Swamp		2.16	0.24	5.76	“
Unnamed Pond		2.16	0.24	5.76	“
Unnamed Pond		2.16	0.24	5.76	“
Unnamed Pond		2.16	0.24	5.76	“
Unnamed Marsh		1.84	0.24	5.44	“
Unnamed Marsh		1.79	0.24	5.39	“
Unnamed Marsh		1.79	0.24	5.39	“

TABLE A.3-11. FLOWING WATER SPILL DISTANCES (60 MINUTE SHUTDOWN TIME)

WATERWAY	(b) (7)(F)	RADIUS OF SPILL (MILES)	SLICK SPEED (MPH)	TOTAL SPILL TRAVEL DISTANCE (15-HOUR)	RESULTS
Cypress Swamp		2.40	0.24	6.00	Spill will cover entire enclosed body of water
Unnamed Swamp		2.40	0.24	6.00	“
Unnamed Pond		2.40	0.24	6.00	“
Unnamed Pond		2.40	0.24	6.00	“
Unnamed Pond		2.40	0.24	6.00	“
Unnamed Marsh		2.13	0.24	5.73	“
Unnamed Marsh		2.09	0.24	5.69	“
Unnamed Marsh		2.09	0.24	5.69	“

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TABLE A.3-12. TIDALLY-INFLUENCED SPILL DISTANCES (60 MINUTE SHUTDOWN)

WATERWAY	(b) (7)(F)	DISTANCE FOR TIDALLY INFLUENCED WATERS (MILES)	DISTANCE FOR 15-HOUR RESPONSE TIME (MILES)	GREATER DISTANCE AS PER 40 CFR 112	IMPACT AREA
Anclote River		15	8.3	15	Bay, Wetlands and Populated Areas
Unnamed Canal		15	3.4	15	"
Allen Creek		15	8.3	15	"
Cross Bayou Canal		15	6.3	15	"
R&J Canal		15	27.7	27.7	"
Unnamed Canal		15	11.5	15	"
Unnamed Canal		15	11.5	15	"
Unnamed Canal		15	11.5	15	"
Unnamed Canal		15	11.5	15	"

TABLE A.3-13. FLOWING WATER SPILL DISTANCES (60 MINUTE SHUTDOWN)

WATERWAY	(b) (7)(F)	TOTAL SPILL TRAVEL DISTANCE 15-HOURS (MILES)	IMPACT AREA
Alligator Creek		4.0	Bay, Wetlands and Populated Areas
Unnamed Ditch		4.0	"
Long Branch Creek		3.4	"
Unnamed Creek		2.9	"
Unnamed Creek		3.5	"
Unnamed Creek		9.5	"

ANNEX 4: PREPAREDNESS AND PREVENTION**A.4-1 SPILL PREVENTION, CONTROL AND COUNTERMEASURE (SPCC) PLAN**

An SPCC Plan has been prepared to describe measures implemented by Bartow Plant to prevent oil discharges from occurring, and to prepare DEF to respond in a safe, effective, and timely manner to mitigate the impacts of a discharge.

Other documents have also been prepared to address the marine-related aspects of this plant, such as the *Marine Transfer Facility Operations Manual* (included in Section II).

The SPCC Plan has been prepared to meet the requirements of Title 40, *Code of Federal Regulations*, Part 112 (40 CFR part 112), as amended. In addition to fulfilling requirements of 40 CFR Part 112, the SPCC Plan incorporates applicable FDEP rules applicable to oil storage (Chapter 62-762, F.A.C.) and referenced technical standards such as API 653.

The SPCC Plan is used as a reference for oil storage information and testing records, as a tool to communicate practices on preventing and responding to discharges with employees, as a guide to facility inspections and as a supplemental resource to this EMG for the Bartow Plant.

In accordance with 40 CFR 112.3(e), a copy of this Plan will be available onsite at the Bartow Plant's Control Room and the EH&S Specialist's Office and at the Environmental Health & Safety Services (EHSS) Section in St. Petersburg, Florida. Additionally, an electronic copy is available on the company's plant-wide shared computer drive.

A.4-2 CONTAINMENT MEASURES

Secondary containment is practical and is provided for all bulk storage containers at the Bartow Plant, as described in the SPCC Plan. Inspections and liquid level monitoring is provided for oil-containing equipment such as mineral oil contained in transformers.

A.4-3 ONSHORE OIL FACILITY INSPECTIONS

FDEP-regulated storage tanks and containment systems are visually inspected on a weekly or monthly basis as required. American Petroleum Institute [API] Method 653 will be performed for the two field-erected ASTs used to store No. 2 fuel oil.

Monthly inspections are conducted on the FDEP-regulated tanks. An example of the Bartow Plant monthly tank inspection form is attached. A record of the tank inspections shall be maintained in the plant files for 5 years. In addition, records will be kept for the following:

- Results of cathodic protection;
- Descriptions and dates of storage system repair.

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These records will be kept for at least 5 years as part of the SPCC plan and Florida FDEP Chapter 62-762, F.A.C. documentation.

A.4-4 OIL UNLOADING AND TRANSFER PROCEDURES

Routine transfer operations at this facility include:

- Delivery of fuel from barge,
- Delivery of fuel oil by pipeline to the aboveground tanks, and
- Delivery of fuel oil by pipeline from aboveground tanks to the plant.

Transfer of fuel from the barge will be in accordance with the Duke Energy Oil Transfer Operations Manual.

A.4-5 DISCHARGE DETECTION**A.4-5-1 Discharge Detection by Personnel**

The oil storage areas and oil-containing equipment areas will be observed on a routine basis by the facility personnel conducting inspection activities, as described in Section A.4-3. Any significant deficiencies observed by facility personnel that could result in an uncontrolled discharge will be immediately reported to maintenance and corrected in a timely manner.

(b) (7)(F)

**A.4-6 OPA 90 INSPECTIONS**

Oil containment boom is inspected once each year the boom shall be examined for damage.

A.4-7 BARTOW/ANCLOTE (B/A) PIPELINE MONITORING AND INSPECTIONS

(b) (7)(F)



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(b) (7)(F)



In addition to the automated pipeline monitoring, the pipeline is patrolled twenty-six times per year, at an interval not to exceed 2 ½ weeks, by driving and foot patrol.

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ATTACHMENT 1. BARTOW INSPECTION FORMS

DUKE ENERGY FLORIDA LOCATION _____ FIELD ERRECTED ABOVEGROUND OIL STORAGE TANKS VISUAL INSPECTION FORM		Date _____ By: _____	
COMPONENT	OK	DISCREPANCY	COMMENTS
STAIRWAY/LADDERS			
PLATFORMS/WALKWAYS			
ROOF			
TANK PAINTING/COATING & LABELS			
BOTTOM-TO-SHELL WELD			
TANK FOUNDATION			
BOTTOM RING to FOUNDATION. SEAL			
SOIL BUILDUP/WASHOUT			
PIPING/VALVES/FLANGES			
TELTAE HOLES OPEN			
MANWAYS			
WATER DRAW OFF VALVES			
GRND. STRAPS			
CONTAINMENT AREA			
CONTAINMENT DRAINS			
CONTAINMENT PANS			
RELEASE DETECTION ALARM			
RAINWATER DRAINAGE			
ELECTRONIC LEVEL ALARM, test			
FIRE PROTECTION SYSTEM			
COMMENTS:			
NOTES: ANY DEFICIENCIES SHALL BE REPORTED TO YOUR SUPERVISOR.			

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EXPLANATION OF INSPECTIONS

STAIRWAYS/LADDERS - The inspector should make sure that the stairway or ladders would support personnel conducting the examination. Inspect for structural integrity, noting general corrosion, pitting corrosion, and paint failure. Inspect attachment welds for cracking or corrosion.

PLATFORMS/WALKWAYS - Check to make sure that the platforms, if present, will support personnel conducting the examination. Inspect for structural integrity, noting general corrosion, pitting corrosion, and paint failure. Inspect attachment weld for cracking or corrosion.

ROOF - The inspector should make sure that the roof would support personnel conducting the examination. Inspect for structural integrity, noting general corrosion, pitting corrosion, and paint failure. Inspect for general thinning or holes. If holes are present, the roof may be too thin for supporting personnel, and access should be limited.

TANK PAINTING/COATING & LABELS - Inspect for paint failures, such as blistering, thinning, chalking, and rust staining. Labels must be legible and properly located.

BOTTOM-TO-SHELL WELD - Inspect the bottom-to-shell weld for corrosion, cracking, or wetting from stored fuel.

TANK FOUNDATION - Inspect the foundation for vegetation around the base. Inspect the area around the tank base for indications of leakage. If the tank is on a soil foundation, check for settlement into the soil.

BOTTOM RING/FOUNDATION SEAL - On tanks with a concrete ring, check to see if the caulk or asphalt seal, if so equipped, is in good condition. Verify that rainwater/groundwater will be directed away from the tank.

SOIL BUILDUP/WASHOUT - Check to make sure that soil is not washed in around the tank shell, or washed away from the tank bottom (undermining).

PIPING - Inspect piping for corrosion, leaking valves or fittings. Look particularly where the piping enters the ground for excessive corrosion, or evidence of leakage. Inspect all aboveground piping associated with each tank system. If equipped with secondary containment piping (i.e., pipe-in-a-pipe), is containment pipe damaged?

TELLTALE HOLES OPEN - Check reinforcing plate holes (telltale holes for leakage). There should not be a plug installed. Typically, penetrations greater than a 2" standard-weight coupling will have a reinforcing plate. Older tanks may not have telltale holes.

MANWAYS - Check manway welds for cracks or leakage. Check telltale holes, flange gasket, and bolts for leakage.

WATER DRAW OFF NOZZLES - Check nozzle welds for cracks or leakage. Check valves, flanges, and reinforcing plates for leaks. Valves on water draw off nozzles should have a blind flange installed.

ANCHORS/GROUND STRAPS - Check anchors, if any, for corrosion, shifting, or deterioration. Check ground straps for broken strands, corrosion, or vulnerability to vehicles and mowers.

CONTAINMENT AREA - Check earthen dikes for excessive erosion or damage from vehicular traffic. Check concrete dikes for excessive cracking.

CONTAINMENT DRAINS - Inspect the dike drains to assure that they are working properly and not plugged. The drains should only be opened when emptying rainwater from the containment area.

CONTAINMENT PANS - Insure pans are in the proper location. Inspect for accumulations of oil. Any oil will be removed and the source repaired. See Incident Reporting. Water will be drained.

RELEASE DETECTION ALARM - Test the audible and visual alarm to insure operation.

RAINWATER DRAINAGE - Check to make sure that rainwater is directed away from the tank and to the drain.

ELECTRONIC LEVEL ALARM - Test the HIGH LEVEL ALARM and the HIGH - HIGH LEVEL ALARM, if equipped, by activating the test switch on the control box.

FIRE PROTECTION SYSTEM - Inspect fire protection piping, particularly at the piping supports, for corrosion or other damage.

TANK GENERAL CONDITION - Inspect the tank for any signs of structural damage or deficiencies. Look for signs of product leakage at welded seams and appurtenances. Note any signs of degradation such as excessive plate bending, wrinkles, etc.

ANNEX 5: TRAINING, DRILLS AND EXERCISES**A.5-1 OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)**

29 CFR 1910.120(q) requires that employees are provided certain training pertaining to onsite emergency plans.

First Responder, Operations Level. This level of training is applicable to most employees (other than the EAC/QI and AQI) that have been assigned responsibility in this EMG. First responders at the operations level are individuals who respond to releases or potential releases of hazardous substances as part of the initial response for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures.

First responders at the operational level will receive at least eight (8) hours of training or have had sufficient experience to show competency in the following [29 CFR 1910(q)(6)(ii)]:

- Knowledge of the basic hazard and risk assessment techniques,
- Use proper personal protective equipment provided at their operational level,
- An understanding of basic hazardous materials terms,
- Knowledge of how to perform basic control, containment and/or confinement operations within the capabilities of the resources and personal protective equipment available,
- Knowledge of how to implement basic decontamination procedures, and
- An understanding of the standard operating procedures and termination procedures.

Each employee at this facility will receive a review of this facility EMG at the following intervals:

1. Initially when the plan is developed.
2. New employees, before work assignment.
3. Whenever the employee's responsibilities or designated action under the plan changes.
4. Whenever the plan changes.
5. Annually.

Records of the 29 CFR 1910.38(a) training will be maintained in the DEF electronic tracking system.

Incident Commander. The EAC/QI and AQI, because of their more aggressive response roles to assume command and manage emergency response efforts, shall receive at least 24 hours of training equal to the first responder operations level and also have competency in the following areas:

- Know and be able to implement the employer's incident command system,
- Know how to implement the employer's emergency response plan,

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- Know and understand the hazards and risks of working in chemical protective clothing,
- Know how to implement the local emergency response plan,
- Know of the state emergency response plan and the Federal Regional Response Team,
- Know and understand the importance of decontamination procedures.

A portion of this training will be given as part of the annual OPA 90 tabletop exercise which covers the DEF Incident Management Team. The exercise also satisfies a portion of the annual refresher training requirement.

A.5-2 U.S. ENVIRONMENTAL PROTECTION AGENCY (USEPA) SPCC TRAINING

40 CFR Part 112.7(f) requires spill prevention and control briefings annually to assure an adequate understanding of the provisions of this SPCC plan. DEF annual meetings will highlight and describe oil spills, or failures, malfunctioning components, or recently developed precautionary measures.

Oil-handling personnel will receive initial training in the operation and maintenance of equipment to prevent discharges; discharge response protocols; applicable SPCC rules; general facility operations; and, the contents of the SPCC Plan.

Training and annual briefing records are retained in the DEF electronic tracking system

A.5-3 U.S. ENVIRONMENTAL PROTECTION AGENCY (USEPA) FRP TRAINING

DEF has developed an annual oil spill recovery training program for those persons who are involved on the Incident Management Team/Spill Management Team (see Annex 1). This training program meets the requirements set forth in 40 CFR 112.21, 33 CFR 154.1035, and 49 CFR 194.117.

This annual training is not designed to meet all the Incident Commander (IC) requirements discussed in Section A.5-1. Bartow Station contracts with approved OSRO capable of responding to small, medium and worst-case discharges as defined in EPA regulations and average- and maximum-most probable and worst-case discharges in USCG regulations. These personnel received the requisite training under OSHA to provide an aggressive spill response using the necessary resources and personal protective equipment.

In the event oil is discharged to a navigable waterway, facility personnel would immediately institute its “defensive only” emergency response procedures as contained in the EMG and would take actions from a safe distance from the release to secure the source of the discharge (*i.e.*, shutting off equipment, activating shut-off valves from Control Room), block off the pipe trench and other drainage pathways, and take practical measures to control and contain the discharge until the OSRO arrives.

A.5-4 PREP (OPA 90) DRILLS/EXERCISES

In addition to the annual training listed on Table A.5-1, DEF follows the schedule for triennial drills recommended by the National Preparedness for Response Exercise Program (PREP) guidelines. The PREP guidelines were developed to be a workable program to meet OPA 90 requirements. The PREP schedule is provided in Table A.5-1.

The OSRO is responsible for providing evidence of response equipment deployment to satisfy the equipment deployment exercise. DEF conducts quarterly QI notification drills, and an annual OPA 90 training and tabletop exercise as an exercise of the EMG with a focus on the OPA 90 FRP portions of the EMG.

The QI will confirm that the OSRO has completed the equipment deployment exercises according to the PREP schedule/alternate procedure. This information is included in Annex 2, Attachment 1.

A.5-5 U.S. COAST GUARD

Each PIC/Operator completes at least 48 hours of hands on training as well as the classroom training outlined below before being certified. This training meets the requirements of 33 CFR 154.710. The training outline is provided on Table A.5-2.

- 154.710 (d)(7) and (8) - Each PIC / Operator receives oil spill recovery instruction in accordance with 33 CFR 154.1050. Records are retained in the .DEF electronic training matrix.
- 154.710 (d)(1) - All employees at the facility receive annual training complying with 29 CFR 1910.1200 Hazards Communication. This training addresses fuel oils. Records are retained in the DEF electronic training matrix.

A.5-6 PIPELINE EMERGENCY RESPONSE TRAINING

Pipeline emergency response training is provided as per 49 CFR 195.403.

The training will familiarize operators with the appropriate sections of the EMG including Section II, Tabs 2 and 3 of the Emergency Response Guide. The training will also cover the procedures for "Abnormal Operating Conditions" contained in the *Pipeline Operations Manual* and *Pipeline Leak Detection Flow Chart*. The Material Safety Data Sheet (MSDS) for residual fuel oil will be included in the training session.

At an interval not exceeding 15 months but at least once each calendar year, DEF will review with personnel their performance in meeting the objectives of the emergency response training program and make appropriate changes to the emergency response training program as necessary to ensure that it is effective.

As required by 49 CFR 194.107(d)(1)(ix) an exercise of the emergency procedures contained in Section 5 of the Bartow/Anclole Pipeline Procedure Manual (Book 190) will be conducted in conjunction with the Qualified Individual (QI) notification exercise. Additional exercises will be conducted to test varying functions described in this EMG.

A.5-7 TRAINING SUMMARY

A summary of training provided to Bartow employees by position is provided in Table A.5-3.

A.5-8 INVITATION TO LOCAL AGENCIES

On an annual basis, the Bartow Station will contact local emergency response agencies (*i.e.*, Fire and HAZMAT, law enforcement) to extend an invitation for a site visit to review potential hazards associated with station and pipeline operations and maintenance.

The extending of an invitation is a Best Management Practice (BMP) and not a legal requirement. Acceptance of the invitation is up to the discretion of the local emergency response agencies.

A log will be maintained of the local agency contacts and their response to the invitation.

Annex 5 Tables

Table	Title
A.5-1	DEF PREP Triennial Training/Exercise Schedule
A.5-2	USCG Training Outline
A.5-3	Training Summary

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Table A.5-1. DEF PREP Triennial Training/Exercise Schedule

PROGRESS ENERGY FLORIDA				
DRILL TYPE	FREQUENCY	DRILLS/ 3 YR. PERIOD	AGENCY	INITIATING AUTHORITY
QI Notification	Quarterly	12	USEPA, USCG	EHSS
Emergency Procedures	Quarterly (Optional)	12 ⁽³⁾ (Optional)	USEPA, USCG	EHSS
Tabletop Exercises	Annual	3 ⁽³⁾	USEPA, USCG	EHSS
Unannounced Exercises	Annual	3 ⁽¹⁾	USEPA, USCG	EHSS
Equipment Deployment - Facility-Owned Equip. - OSRO-Owned Equip.	Annual Annual	3 3	USEPA, USCG	Station EH&S Specialist
Exercise Entire Response Plan	All Components Every 3 Years	1	USEPA, USCG	EHSS
CORPORATE RESPONSE TEAM DRILLS				
Tabletop Exercise	Annual	3 ⁽³⁾	USEPA, USCG	EHSS
Equipment Deployment (OSRO Equipment)	Annual	3	USEPA, USCG	Station EH&S Specialist
Exercise Entire Response Plan	All Components Every 3 Years	1	USEPA, USCG	EHSS
AGENCY INITIATED DRILLS				
DRILL TYPE	FREQUENCY	ADVANCE D NOTICE	INITIATING AUTHORITY	RESPONSE TEAM AFFECTED
Unannounced Tabletop Exercise	Annually, If Selected	10 ^(2,4) Days Prior	RSPA	EHSS
Unannounced Equipment Deployment	Annually, If Selected	None ⁽⁴⁾	USEPA, USCG	Station EH&S Specialist
Area Exercise	Triennially, If Selected	Advanced Notice ⁽²⁾ Provided	USEPA, USCG	EHSS

(1) Unannounced drills can include any of the following:

- Emergency Procedures Exercises
- Spill Management Team Tabletop Exercises
- Equipment Deployment Exercises.

(2) 20 Exercises total nationwide per year (6 Government led and 14 Industry led).

(3) One drill must include a worst-case discharge scenario.

(4) Not required to participate in another federal government initialed drill until 36 months have passed.

Table A.5-2. USCG Training Topics

GOVERNMENT POLICIES AND AUTHORITY

OVERVIEW OF FLORIDA'S ENVIRONMENT

FATE OF OIL ON LAND AND WATER

BOOM AND RECOVERY SITE SELECTION

SPILL CONTAINMENT

USE OF BOOM

SPILL REMOVAL

DUKE ENERGY FLORIDA OIL SPILL RECOVERY GUIDE

OILED WILDLIFE (will be handled by a third party)

WASTE DISPOSAL (will be addressed by DEF Environmental Health and Safety Services Section (EHSS) and Materials Specialists)

NEWS MEDIA RELATIONS (will be addressed by Public Relations Department)

PRACTICAL EXERCISES

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Table A.5-3. Training Summary
Recovery Personnel - Prerequisite Training – DEF Training Name, Number, Audience

DEF Training Course Name	Course No.	Required Audience
Emergency Response Station / Fire Safety (initial)	SF2085	All Employees
Employee Emergency Drill (initial)	EHS0128	All Employees
Incipient Fire / Fire Extinguishing	SF478	All Employees
Personal Protective Equipment (PPE)	SF113	All Employees
Hazwoper Level I – Awareness	ENV0004G	All Employees
Hazard Communication (chemicals) (initial)	SF478	All Employees
SPCC Plans / Oil Spill Awareness	EHSENV01 / EV617IG	All employees, excluding office assistants

Annual Recovery Personnel Training

DEF Training Course Name	Course No.	Required Audience
Facility Response Plan: Oil Spill Response	EV618IG	Operators, Fuel Techs, Machine Shop, Management Optional
Facility Response Plan: Emergency Action Coordinator	EHSENV13	Station and Terminal Management (EAC/QI/AQI's), non-supervisory management optional
Facility Response Plan: Incident Management	EHSENV15	Persons listed as IMT members.

ANNEX 6: CROSS-REFERENCE AND COMPLIANCE DOCUMENTATION

A.6-1 Objectives

This annex provides the necessary information for plan reviewers to determine compliance with specific regulatory requirements. This annex includes the Substantial Harm determinations as required by OPA 90 regulations and other key correspondence relating to the EMG.

A.6-2 EPA, USCG and DOT Cross-References

Table A.6-1 is the cross-reference showing the sections of the EMG satisfying the 40 CFR 112.20 (EPA) requirements for a Complex Facility. Table A.6-2 is the cross-reference showing compliance with the transportation-related (USCG) portions of the EMG covered by 33 CFR Subpart F. Lastly, Table A.6-3 is the cross-reference showing compliance with 49 CFR 194 (DOT) requirements.

Apart from the OPA 90 regulations, the Emergency Response Plan is subject to OSHA requirements. Table A.6-4 is a cross reference showing compliance with OSHA elements.

A.6-3 Certification

Copies of the OPA 90 Substantial Harm determinations are included in Attachment 1, along with any other relevant certifications that apply to oil and hazardous substance management.

A.6-4 Compliance Correspondence

Significant correspondences with EPA, USCG, DOT, FDEP or other agency addressing the compliance status of this EMG are maintained in the onsite environmental files and may also be included in this section.

A.6-5 Other Compliance Documentation

Significant compliance documentation to demonstration compliance with the applicable regulations and/or conformance with this EMG will be included in this section at the discretion of the EMG holder. Additional documentation will be maintained in the DEF records and/or electronic database.

ANNEX 6 TABLES

Table	Title
A.6-1	EPA Cross-Reference
A.6-2	USCG Cross-Reference
A.6-3	DOT Cross-Reference
A.6-4	OSHA Emergency Plan Cross-Reference

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Table A.6-1. EPA Cross-Reference

1.0 EMERGENCY RESPONSE ACTION PLAN [112.20 (h) (1)]	Section	Tab No. or Name	Page
Separate Section of FRP	II		
Qualified Individual (QI) Information	II	Sustained Action Introduction	1
	III	Oil Spill Incident Management Team, Scope	Table A.1-2
Language describing that the Q.I. has authority to contract for cleanup resources	II	Sustained Action Introduction	1
	III	Annex 1	Table A.1-2
Emergency Notification Phone List	II	9	
Spill Response Notification Form	II	2	
Equipment List (Facility-owned equipment only)	III	Oil Spill Recovery Action Guidelines Recovery Equipment	Section 5.1.3
Facility Response Team List (include description of personnel duties in the event of a release)	II	2	10
Facility Evacuation Plan	II	1	9
Immediate Actions	II	2	--
Facility Diagrams	II	12	--

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2.0 FACILITY INFORMATION [112.20 (h)(2)]	Section	Tab No. or Name	Page
Facility Name and Location	I	Section I Attachment 2	Figure 1-2
Latitude and Longitude			Figure 1-2
Wellhead Protection Area			Figure 1-2
Owner/Operator			Figure 1-2
Qualified Individual			Figure 1-2
Dates of Oil Storage Start-up			Figure 1-2
Current Operation			Figure 1-2
Date and Type of Substantial Expansion			Figure 1-2

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3.0 EMERGENCY RESPONSE INFORMATION [112.20 (h) (3)]		Section	Tab No. or Name	Page
(i)	Identity of non-OSRO contracted personnel and equipment necessary to remove worst case discharge (and other discharges of oil)	II III	2 Oil Spill Recovery Action Guidelines	5 - 11 Attach. 1
(ii)	Evidence of contracts or other approved means for contracted services, as specified by 40 CFR 112.2	II	2	12
(iii)	Identity and telephone numbers of individuals/ organizations to be contacted in the event of a discharge (minimum information required <i>either National Response Center or OSC, and QI</i>)	II	2	5
(iv)	Description of spill response notifications procedures, including specific information to be collected by facility and provided for notification	II	2	--
(v)	Description of facility response personnel capabilities, including duties of facility personnel during a response action.	II	2	10
(vi)	Description of facility's response equipment, including location of equipment and testing schedule	II	Oil Spill Recovery Action Guidelines, Training, Drills Equipment Tests	Section 5.1.3 Annex 5
(vii)	Facility evacuation procedures, including tie-in to community evacuation plans and diagram of facility evacuation routes	II	1	9
(viii)	Description of duties of Q.I., including:	Section	Tab No. or Name	Page
Facility alert procedures		II	2	1-4
Notification of response personnel, including appropriate regulatory authorities, and emergency services personnel		II	2	1-7
Obtaining preliminary information on nature, amount, and extent of release		II	2	1-2
Assess hazards to human health and the environment relating to the release		II	11	2
Implement prompt removal actions to contain and remove discharge		II	10	--
Coordinate response actions		II	11	--
Direct cleanup activities on behalf of spiller		N/A	N/A	N/A

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4.0 HAZARD EVALUATION [112.20 (h)(4)]			
4.1 Hazard Identification	Section	Tab No. or Name	Page
Tank and Surface Impoundment (SI) Forms (or equivalent) (As described in Appendix F, Section 1.4.1)	III	Oil Spill Risk Assessment	Table A.3-1
Schematic drawing relating location of tanks and SI from form to map	II	12	2, 5
Written description of possible spill sources, as appropriate			
– Loading and unloading operations, including trucks, tank cars, and vessels. Also, description of any on-site pipelines used to load and/or unload oil from facility, as appropriate.	III	Oil Spill Risk Assessment	Section 2.1
– "Day to Day" operations	III	Oil Spill Risk Assessment	Section 2.1
– Secondary containment volumes for each individual tank and/or transfer point at facility and total facility containment	III	Oil Spill Risk Assessment	Table A.3-1
– Numbering scheme for tanks consistent with that used in schematic drawing and SI Forms	II	12	--
– Normal daily throughput	III	Oil Spill - Risk Assessment	Section 1.0
4.2 Vulnerability Analysis			
Water Intakes (drinking, cooling, or other)	III	Oil Spill Risk Assessment, Section 3.0	Table A.3-3
Schools			"
Medical Facilities			"
Residential Areas			"
Businesses			"
Environmentally Sensitive Areas			"
Fish and Wildlife			"
Lakes and Streams			"
Endangered Flora and Fauna			"
Recreational Areas			"
Transportation Routes			"
Utilities			"
Other Areas of Economic Importance			"

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4.0 HAZARD EVALUATION [112.20 (h)(4)]	Section	Tab No. or Name	Page
4.3 Analysis of Potential for a Spill	III	Oil Spill Risk Assessment	Sections 2.0-4.0

	Section	Tab No. or Name	Page
4.4 Facility Spill History	III	Oil Spill Risk Assessment	Table A.3-2

5.0 RESPONSE PLANNING LEVELS [112.20 (h) (5)]	Section	Tab	Page
(i) Worst Case Discharge	III	Oil Spill Risk Assessment	Section 4.2
– Written description of WCD scenario			
– WCD (Appendix D) worksheet provided	III	Oil Spill Risk Assessment	Section 4.2
(ii) Small Discharge - 2,100 gallons or less	III	Oil Spill Risk Assessment	Section 4.1
– Written description of small discharge scenario			
(iii) Medium Discharge - 2,100 gallons < 36,000 gallons or (10% of largest tank capacity, whichever is less)	III	Oil Spill Risk Assessment	Section 4.1

6.0 DISCHARGE DETECTION SYSTEMS [112.20 (h) (6)]			
6.1 Discharge Detection by Personnel	Section	Tab	Page
Detection Procedures	III	Oil Spill Risk Assessment	Annex 4 Section A.4-5
Discussion of Facility Inspection Procedures	III	Oil Spill Risk Assessment Training, Drills, Equipment Tests	Annex 4 Annex 5
Initial Response Actions	III	Oil Spill Risk Assessment	Annex 2 Sections 4.0-5.0

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7.0 PLAN IMPLEMENTATION [112.20 (h) (7)]	Section	Tab No. or Name	Page
(i) "Adequate" written description of response actions			
– WCD	III	Oil Spill Recovery Action guidelines	Section 5.0
– Medium Discharge	III	Oil Spill Recovery Action guidelines	Section 4.0
– Small Discharge	III	Oil Spill Recovery Action guidelines	Section 4.0
(ii) Description of response equipment needed for:			
– WCD	III	Oil Spill Recovery Action guidelines	Section 5.0
– Medium Discharge	II	10 Oil Spill Recovery Action guidelines	-- Section 4.0
– Small Discharge	II	10 Oil Spill Recovery Action guidelines	-- Section 4.0
(iii) Disposal Plans			
– How and where materials will be disposed, recovered, reused, or decontaminated	III	Oil Spill Recovery Action guidelines	Section 2.6
– Local, State and Federal Regulations for transport and disposal addressed.	III	Oil Spill Recovery Action guidelines	Section 2.6
(iv) Containment and Drainage Planning			
– Plan provided which describes containment available at the facility, including features of drainage system used to route spilled material for containment.	III	Oil Spill Risk Assessment	Section 7.0

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8.0 SELF-INSPECTION, DRILLS/EXERCISES, AND RESPONSE TRAINING [112.20 (h) (8)]	Section	Tab No. or Name	Page
(i) Facility Self-inspection			
– checklists for inspection of tanks and secondary containment	III	Annex 4	Attach. 1
– checklist for inspection of facility response equipment	III	Annex 4	“
– inventory (item and quantity)	III	Annex 4	Section A.4-6
– storage locations			
– accessibility (time to access and respond)			
– operational status/condition			
– actual use/testing (last test date and frequency)	III	Annex 4	Section A.4-6
– shelf life (expected replacement date)	III	Annex 4	N/A
– equipment inspection logs maintained at facility	III	Inspection/Drill Records, Spill History	On-site
(ii) Drill/Exercise Program Description			
– Copies of drill logs maintained at facility	III	Inspection/Drill Records, Spill History	On-site
(iii) Response Training Program Description			
– Copies of training records maintained at facility	II	2	10

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9.0 DIAGRAMS [112.20 (h) (9)] Site Diagram Checklist	Section	Tab No. or Name	Page
Entire facility drawn to scale	II	12	--
Above and below ground bulk oil storage tanks			--
Contents and capacities of bulk oil storage tanks			--
Contents and capacities of drum oil storage areas	II	12	
Contents and capacities of surface impoundments	II	12	
Process buildings	N/A		
Transfer areas	II	12	--
Location and capacity of secondary containment systems			--
Hazardous materials storage areas; including capacity and I.D. of material			--
Location of oil-filled electrical equipment			--
Location of spill response equipment			--
For complexes, interface between portion of facility regulated by EPA and that of USCG	II	12	--

Site Drainage Diagram Checklist	Section	Tab No. or Name	Page
Storm sewer system, including locations of inlets, manholes, and outlets	II	12	--
Control structures (weirs, sluice gates, etc.)	N/A	N/A	N/A
Ditches, wet-weather streams and other surface water features	N/A	N/A	N/A
Direction of overland spill flow from potential sources	II	12	--

10.0 SECURITY [112.20 (h) (10)]	Section	Tab	Page
	III	Oil Spill Risk Assessment	Section 6.0

11.0 RESPONSE PLAN COVER SHEET	Section	Tab	Page
RPCS (including self-determination) completed and included in plan	III	Correspondence & Certifications - EPA	--

12.0 DISPERSANT [Appendix E to Part 112]	Section	Tab	Page
Description and use of dispersant materials	N/A	N/A	N/A

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Table A.6-2. USCG Cross-Reference

33 CFR 154.1035(b)	Section	Tab No. or Name	Page
Introduction and plan content	Section I		--
Emergency response action plan			
Notification procedures	Section II	2	3 – 5
(ii) Facility Spill Mitigation	Section III	Oil Spill Risk Assessment	Section 5.0
(a) Average Most Probable Spill			
(b) Maximum Most Probable Spill			
(c) Worst Case Discharge			
(iii) Facility Response Activity			
(a) Facility Personnel's Responsibilities	Section II	13	1
(b) Qualified individual	Section III	Annex 1	Table A.1-2
(c) Corporate organization	Section III	Annex 1	--
(d) Removal and management	Section II	10 & 11	--
(iv) Sensitive areas	Section III	Oil Spill Risk Assessment Oil Spill Action Guidelines	Section 3.0 Attach. 2
(v) Disposal plan	Section III	Oil Spill Action Guidelines	Section 2.6
(1) Hazard Evaluation	Section III	Oil Spill Risk Assessment	Section 2.0
(2) Spill Scenarios	Section III	Oil Spill Risk Assessment	Section 4.0
(5) Training / Drills	Section III	Annex 5	Section A.5
(a) Training procedures			
(b) Drill Procedure			
(6) Plan review and Update	Section I		Section I.3
(7) Appendices			
(i) Facility Specific Information	Section II	Marine Transfer Operations—on file with USCG Tampa Sector	--
(a) Physical ID			
(b) Size and type of Vessels			
(c) ID First Valve			
(d) Oil ID			
(ii) List of Contacts	Section II	2	5
(iii) Equipment List and Locations	Section III	Oil Spill Action Guidelines	Attach. 1
(iv) Communications Plan	Section III	Oil Spill Action Guidelines	--
		Annex 1	Table A.1-2
(v) Safety and health Plan	Section II	Tab 11	--

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Table A.6-3. DOT Cross-Reference

49 CFR 194 APPENDIX A	SECTION	TAB or NAME	PAGE
Section 1: Information Summary must include:			
(a) For the Core Plan:			
(1) Name and address of operator	II	3	2
(2) Response Zone description	III	Annex 3	A.3-16
(b) For each Response Zone appendix:			
(1) Information Summary from the Core Plan,		Annex 3	A.3-16
(2) Description of the response zone		Annex 3	A.3-16
(3) A description of the response zone in which a Worst Case Discharge could cause substantial harm to the environment,	III	Annex 3	
(4) A list of line sections contained in the response zone,	III	Annex 3	A.3-17
(5) Basis for determination of significant and substantial harm,			A.3-17
(6) Type of oil and Worst Case Discharge volume	III	Annex 3	A.3-18
(7) Response Capability Certification	III	Annex 3	A.3-18
(c) Response Capability Certification	III	Annex 6	Attach. 2
Section 2: Notification Procedures			
(a) Notification	II	3	1
(b)(c)(d) Notification Checklist	II	3	1
(e) Means of Notification	II	3	1
(f) Notification Information	II	3	1
Section 3: Spill Detection & On Scene Mitigation Procedures			
(a) Release Detection	III	Annex 3	A.3-16
(b) Priority Procedures	III	Annex 2	A.2-4
(c) Response Equipment	III	Annex 1	
(d) Additional Response Equipment	III	Annex 2	Attach. 1
(e) Response Personnel	II	2	"
Section 4: Response Activities			
(a) Initial Actions	II	3	All
(b) QI Responsibilities	III	Annex 1	Table A.1-2
(c) Unified Command	III	Annex 1	--
(d) Recovery Contractors	III	Annex 2	Attach. 1
(e) Contractor Equipment & Personnel	III	Annex 2	1
(f) (1) Contractor Equipment			Attach 1
(2) Contracted Personnel			1

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49 CFR 194 APPENDIX A	SECTION	TAB or NAME	PAGE
Section 5: List of Contacts			
(a) Operator Contacts	II	9	--
(b) QI	II	9	--
(c) Insurance Representatives	II	9	3
(d) Response Resources	II	9	--
Section 6: Training Procedures	III	Annex 5	--
Section 7: Drill Procedures	III	Annex 5	--
Section 8: Response Plan Review & Update Procedure	I		Section I.3
Section 9: Response Zone Appendices	N/A	N/A	N/A

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Table A.6-4. OSHA Emergency Action Plan Cross-Reference

Description	29 CFR Part 1910.38(a)	Location
Emergency escape procedures and route assignments	(2)(i)	Section II—Evacuation
Procedures to be followed by employees who remain to operate critical station operations before they evacuate	(2)(ii)	Section II—Evacuation
Procedures to account for all employees after an evacuation is completed	(2)(iii)	Section II—Evacuation
Rescue and medical duties for employees who are to perform them	(2)(iv)	Not applicable
Preferred means of reporting fires and other emergencies	(2)(v)	Section II—Discovery procedures
Names and regular job titles of persons and departments who can be contacted for further information or explanation of duties	(2)(vi)	Section II, Tab 2
Employer must establish an alarm system in accordance with 1910.165	(3)(i)	Section II—Evacuation
Fire Brigade notification	(3)(ii)	Not applicable
Evacuation	(4)	Section II—Evacuation
Training	(5)	Annex 5

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ANNEX 6 ATTACHMENTS

Attachment	Title
1	OPA 90 Certifications
2	Regulatory Correspondence
3	Other Compliance Documentation

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Attachment 1. OPA 90 Certifications

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FACILITY RESPONSE PLAN COVER SHEET

General Information

Owner/Operator of Facility: Duke Energy Florida

Facility Name: P. L. Bartow Station

Facility Address (street address or route): 1601 Weedon Island Drive

City: St. Petersburg State: FL U.S. Zip Code: 33702

Facility Phone Number: (727) 827-6100

(b) (7)(F)

Dunn & Bradstreet Number:¹ 006923700

(b) (7)(F)

Number of Aboveground Oil Storage Tanks: 3

(b) (7)(F)

Standard Industrial Classification (NAICS) Code:¹ 2211

(b) (7)(F)

Facility Distance to Navigable Water. Mark the appropriate box:

☒

0 – ¼ mile

☐

¼ - ½ mile

☐

½ - 1 mile

☐

> 1 mile

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Applicability of Substantial Harm Criteria

Does the facility transfer oil over water² 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 containment² that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation?

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 distance² (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?³

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 distance² (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake?²

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 spill² in an amount greater than or equal to 10,000 gallons within the last five years?

Yes ☐ No ☒

Certification

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

Signature: _____

Name (Please type or print): Reginald Anderson

Title: Station Manager

Date: _____

¹These numbers may be obtained from public library resources.

Attachment 2. Regulatory Correspondence

**DUKE ENERGY FLORIDA
BARTOW CC STATION**
**EMERGENCY MANAGEMENT GUIDE
AUGUST 2013**

May 14, 1973

* Revised April 22, 1975
* Revised July 22, 1994
* Revised January 5, 1995
* Revised December 9, 2003
* Revised June 1, 2013

U.S. Coast Guard, M.S.O.
Captain of the Port
155 Columbia Drive
Tampa, FL 33606

Dear Captain of the Port:

Duke Energy Florida, Inc. is submitting this Letter of Intent to operate an oil transfer facility at our Bartow electric generating plant on Weedon Island in St. Petersburg, FL. Current Company plans call for the oil transfer facility to continue in operation. The following information is updated as it applies to the Bartow Plant:

- a) Operator – Duke Energy Florida, Inc.
100 Central Avenue
St. Petersburg, Florida 33701
- b) Facility – Bartow Plant
1601 Weedon Island Drive
St. Petersburg, FL 33702
Telephone: 727-827-6100
- c) Location - The Bartow Plant is located on Weedon Island approximately one mile south of the Gandy Bridge on the west coast of Tampa Bay.

Current copies of the Bartow Marine Transfer Facility Operations Manual and Facility Response Plan were submitted to Petty Officer Brown on November 26, 2003.

Should you have any additional questions or requests, please feel free to contact Steve Ryan, Bartow Plant Sr. Environmental Specialist, at 727-827-6107.

Sincerely,

Brenda Brickhouse
Bartow Plant Manager

SR:sr
c: P. MacDonald, L. Gonzalez, S. Ryan

Attachment 3. Other Compliance Documentation

**DUKE ENERGY FLORIDA
BARTOW CC STATION****EMERGENCY MANAGEMENT GUIDE
AUGUST 2013**

**Duke Energy Corporation Bartow Plant
Marine Terminal Fuel Unloading Arm Name Plate Data
12/03**

NORTH Terminal Unloading Arms

Manufacturer: FMC Corporation
North American Loading System
Houston, Texas

Model: Marine Arm - RCMA
Number: 16616-2A
Size: 8X44-0

Manufactured according to ANSI B.31.3

SOUTH Terminal Unloading Arms

Manufacturer: Continental EMSCO Company
A Division of Youngstown Sheet & Tube Co.
Dallas, Texas

Type: MRLA-12
Serial Number: 157 (east arm), 156 (west arm)

**DUKE ENERGY FLORIDA
BARTOW CC STATION****EMERGENCY MANAGEMENT GUIDE
AUGUST 2013**

**Progress Energy Florida, Inc.
Bartow Plant
1601 Weedon Island Drive
St. Petersburg, FL 33702**

**North Terminal Unloading Arm Oil Release to Waters of the U.S
February 4, 2004**

At approximately 15:30 the plant Environmental Specialist discovered #6 fuel oil dripping from the flange of a north terminal unloading arm. The unloading arm was not in use at the time of discovery. An estimated 1 gallon of oil dripped into the unloading arm containment area and an estimated ¼ cup of oil entered the intake canal. As the oil dripped the wind would occasionally blow a drop outside the containment area and into the intake canal. ESS was notified of the spill and reported it to the National Response Center. The flange was wrapped with oil absorbent pads and visqueen. The oil in the containment area was cleaned up with oil absorbents. The oil drop sheens dissipated within minutes of entering the water and were unrecoverable. The duration of the leak is unknown, but suspected to be less than 24 hours in length. The unloading arm was last used on Saturday, January 31, 2004 to unload barge DBL 152. Upon further examination, it was determined that a loose flange caused the leak. The barge tankerman are responsible for removing the flange to begin the unloading and securing the flange when the unloading is complete.

**DUKE ENERGY FLORIDA
BARTOW CC STATION**
**EMERGENCY MANAGEMENT GUIDE
AUGUST 2013**

INCIDENT INFORMATION NOTIFICATION FORM		INCIDENT NAME:		INFORMATION AS OF:	
		North Offloading Arm		DATE 2/5/04	TIME 0745
FACILITY INFORMATION AND POINTS OF CONTACT					
Facility: P. L. Bartow Plant 1606 Weedon Island Drive St. Petersburg Pinellas County, FL 33702 (727) 827-6100		Owner/Operator: Florida Power a Progress Energy Company P. O. Box 14042, BB1A (263 – 13 th Avenue South) St. Petersburg, FL 33733 (727) 820-5151			
NATIONAL RESPONSE CENTER (NRC) (800) 424-8802 – (202) 267-2675					
FL State Warning Point (800) 320-0519					
Date and Time of Notification: 2/4/04 - 1715					
Person Making Notification (Name/Title): Paul J MacDonald, Senior Environmental Specialist, ESS					
NRC Person Receiving Report: Threatt				NRC Case No.: 712437	
INCIDENT INFORMATION					
Emergency Action Coordinator: Steve Ryan					
Latitude/Longitude:					
Type of Casualty: Leaking blind flange on the north offloading arm.					
Number of Tanks Impacted: N/A			Total Capacity of Affected Tanks: N/A		
Material(s) Spilled: #6 oil			Viscosity:		
Estimated Quantity Spilled: 1 quart			Estimated Date and Time of Spill: 2/4/04 - 1550		
Source Secured?		If Not, Estimated Spill Rate:			
Threatened/Affected Waterways: Tampa Bay			Estimated Quantity in the Water: .5 cups		
Notes:					
INCIDENT STATUS					
Actions Taken to Correct or Mitigate Incident: Leaking flange is secured and the leak is stopped.					
The oil that reached the water dissipated so no recovery actions were required.					
IMPACT					
Number of Persons on Site:				Were there Evacuations? (Y/N/U)	
Number of Injuries:				Number of Evacuated:	
Number of Fatalities:				Damage in Dollars:	
Was there any Damage? (Y/N/U)					
Any information about this incident not recorded elsewhere on this form:					
ENVIRONMENTAL INFORMATION					
Wind Speed:	mph	Wind Direction:	Air Temperature: 75 °F	Water Temperature:	
Wave Height: 0	Feet	Wave Direction:	Rain? (Y/N)	Tide:	
Current:	mph	Current Direction:	Overcast: 0%	High Tide at:	
Swell Height:	Feet	Swell Direction:		Low Tide at:	
Notification Info. 12/98		Prepared By: Paul J MacDonald			Date/Time Prepared: 2/5/04 - 0745