# Florida Keys Area Contingency Plan (FKACP)

# 2022.3

## Record of Changes

| Change Number | Change Description | Section Number | Change Date | Name |
|---|---|---|---|---|
| 1 | Format updates completed per ACP Crosswalk Initiative to align with ALCOAST 396-23 | Various | July 2025 | MST2 Jonathan Braddy |
| 2 | Update WCD Table | 4110 | July 2025 | MST2 Alex C. Weber |
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# 1000 General and Administrative Items

## 1100 Introduction

The Florida Keys Area Contingency Plan (FKACP) describes the strategy for a coordinated federal, state, tribal, and local response to a discharge or substantial threat of discharge of oil, or a release or substantial threat of release of hazardous substance(s), within the boundaries of the Florida Keys.

This Area Contingency Plan (ACP) shall be used as a framework to evaluate shortfalls and weaknesses in the response structure before an incident and as a guide for reviewing Vessel Response Plans (VRPs) and Facility Response Plans (FRPs) required by the Oil Pollution Act (OPA) of 1990, 33 U.S.C § 2701 *et seq*. VRPs and FRPs should be consistent with this ACP and address, among other things, the economically and environmentally sensitive areas within the geographic area, the response equipment (quantity and type) available within the area (this includes federal, state, and local government and industry owned equipment); response personnel available; equipment and personnel needs compared to those available, and protection strategies. This ACP is written in conjunction with OPA, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP, 40 C.F.R. Part 300) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA, 42 U.S.C. § 9601 *et seq.*). As such, when implemented in conjunction with other provisions of the NCP, this ACP should be adequate to remove a worst case discharge under § 300.324, and to mitigate or prevent a substantial threat of such a discharge, from a vessel, offshore facility, or onshore facility operating in or near the area.

**** Note: All specific contacts applicable to this ACP have been combined into one "all inclusive" contact spreadsheet located in** Annex A.*

### 1110 Authority

ACPs are required by OPA, 33 U.S.C.1321 (j), to address the development of a national planning and response system. Area Committees have been established for each area of the United States that has been designated by the President. The Area Committees are comprised of personnel from federal and state agencies that coordinate response actions with tribal and local governments and with the private sector. Area Committees, under the coordinated direction of the Federal On-Scene Coordinator (FOSC), are responsible for developing ACPs for their respective designated areas. Area Committees are also required to work with the response community to develop procedures to expedite decisions for the use of alternative response technologies.

### 1120 Purpose

The purpose of this ACP is:

- To provide effective implementation of response actions to protect people, natural resources, and property of the coastal zone covered by this plan from the impacts of an oil discharge, substantial threat of discharge of oil, a release of hazardous substance, or substantial threat of a release of a hazardous substance, including Weapons of Mass Destruction (WMD).
- To promote coordination and strategy for a unified and coordinated federal, state, tribal, local, potential responsible party, response contractor, response cooperative, and community response.
- To provide guidance to all VRP and FRP reviewers and plan holders to ensure consistency with the FKACP.
- To provide guidance for responders.

Historically, the users of the ACP have been confronted with incidents that were caused by nature (hurricanes, floods, etc.) or from the unintentional actions of individuals (grounding, collision, etc.).

In today's world where terrorism is a greater reality, the intentional discharge of oil, release of a hazardous substance, biological agent or radiation poses unique challenges to those who respond. Federal and state laws and regulations require oil spills, hazardous substance releases or responses to WMDs be managed with a trained and competent response management organization that accommodates a unified command structure in recognition of federal, state, tribal and local jurisdiction.

The FKACP is designed to ensure that the initial actions taken in response to a hazardous substance release, oil spill, radiological, or biological incident that occurs within or threatening the designated coastal zone, are effectively managed from the start and incorporate other agency plans and operating procedures as those agencies arrive on-scene. However, incidents are never identical and once initial actions have been taken, responders will assess the incident and tailor their strategies and tactics to match the reality of the situation. ***As such, notwithstanding any statutory or regulatory requirements, this ACP outlines general response protocols for a notional incident (unknown date, time, location, and variables). This ACP is not intended to be a definitive step-by-step guide on all potential items necessary to mitigate any particular incident.***

### 1130 Document Organization

The FKACP provides guidance for the Area Committee, defines authorities and applicability, outlines plan maintenance and exercise requirements, and describes the overarching strategy for a coordinated multi-agency response to an oil discharge or hazardous substance release. Additionally, the FKACP contains an overview of the geographic response strategies (GRSs)/geographic response plans (GRPs) in Section 4600, and overview of the Fish and Wildlife and Sensitive Environments Plan in Annex C, which encompasses the Environmental Annex information required by the NCP. Additionally, the FKACP Annexes are described in the next section.

## 1200 Annexes

The FKACP Annexes contain Quick Response Cards (QRCs) checklists, and other necessary job aids and documents to assist emergency management preparedness specialists and response personnel; all items are "grab and go" for ease of use. Tables 1 & 2 listed below provide centralized lists of annexes to support personnel in planning for or responding to an oil discharge or hazardous substance release within the FKACP planning area. To maximize efficiency, all annexes are hyperlinked and incorporated by reference into this ACP.

### 1210 Scope

In the accompanying tables, you will find annexes developed and maintained by the Florida Keys Area Committee (FKAC). This list can expand or contract as necessary to meet the needs of local planners and responders.

Each annex in the table is hyperlinked to the Sector Key West Homeport site where they are housed. If you encounter trouble using the links provided, it is recommended that you right click on the link, edit hyperlink and copy and paste the Uniform Resource Locator (URL) into your browser to access the website.

Table 1: List of Standard Annexes

| Annex | Title |
|---|---|
| Annex A | Contact Spreadsheet |
| Annex B | Risk Analysis: Risk Profiles |
| Annex C | Fish and Wildlife and Sensitive Environments Plan |
| Annex D | Hazardous Substance Response |

| Table 1: List of Standard Annexes | |
|---|---|
| **Annex** | **Title** |
| Annex E | Marine Fire Fighting Plan (Salvage Plan incorporated by reference in Sec 1800 ) |
| Annex F | Planning and Response Tools |
| Annex G | Voluntary Organizations Active in Disaster (VOAD) |
| Annex H | ESF-10 Protocols: Natural Disaster Response Plan-FL, Additional guidance (referenced in Sec 1600) R4 RCP Annex E Natural Disaster Pollution Response |
| Annex I | Ice Operations (N/A for D7 Coastal ACPs) |
| Annex J | Space Operations (TBD as applicable) |
| Annex K | Air Operations and Unmanned Aircraft Systems (UAS) Support (TBD) |
| Annex L | Unconventional Oil Response |
| Annex M | State Historic Preservation Officer (SHPO) Protocols (Tribal: TBD) |
| Annex N | Swift Water Operations (N/A for D7, incorporated into Sub-section 5533) |
| Annex O | International Coordination (CUBUS Plan in Sub-Section 1513.1) |
| Annex P | Initial Reporting Form |
| Annex Q | USCG Documentation POC's (DOCL ICS Form 207) |

| Table 2: List of Area and Regional Annexes | |
|---|---|
| **Annex** | **Title** |
| Annex AA | Shoreline Cleanup Methods |
| Annex BB | Places of Refuge Policy |
| Annex CC | Health and Safety Plan |
| Annex DD | Environmental Health Support Guidance |
| Annex EE | Community Air Monitoring Protocols (TBD) |
| Annex FF | Water Sampling Protocols (TBD) |
| Annex GG | Disposal Plan |
| Annex HH | Decanting Plan (TBD 6c) |
| Annex II | South Florida Tar Ball Response Plan (TBD) |
| Annex JJ | Consultations: Surface Washing Agent Preauthorization (TBD) |
| Annex KK | Marine Mammal Response Plan |

# 1300 Florida Keys Area Committee

The Florida Keys Area Committee (FKAC) is a spill preparedness and planning body made up of federal, state, tribal, and local agency members, and with industry, and non-governmental organization representation. The FKAC, under the direction of the USCG Sector Key West Captain of the Port (COTP), is responsible for developing an ACP. The FKAC is also responsible for working with state and local officials to plan for joint response efforts, including appropriate procedures for mechanical recovery, dispersant use, shoreline cleanup, protection of sensitive environmental areas, and protection, rescue, and rehabilitation of fisheries and wildlife. The FKAC is also required to work with state and local officials to expedite decisions for the use of dispersants and other alternative response technologies.

The geographical boundaries of this plan are defined in Part 2000 of this document.

## 1310 Mission Statement / Charter:

The mission of the FKAC is to ensure the highest state of readiness of the spill response community. The FKAC will strive to accomplish this by developing a comprehensive and useful ACP, preparing the response community through training and exercises, developing coordination mechanisms to facilitate effective responses, and educating our stakeholders and the public. The FKAC will function

as an efficient organization for ensuring effective response to environmental threats in our area. The FKAC will collaborate, sharing information and resources to produce the best possible plans and creative solutions to problems. The FKAC will employ best available research and technology in both problem solving and decision-making. The FKAC will learn from responses and activities, improve processes, and develop as individuals and as an organization.

## 1320 Organization

The FKAC is comprised of representatives from federal, state, and local governments as ***appointed members*** and ***members-at-large*** from non-governmental agencies such as the maritime industry, wildlife rehabilitation organizations, and academia, as advisors.

## 1321 Committee Chair and Vice-Chair

The USCG Sector Key West COTP, as predesignated Federal On-Scene Coordinator (FOSC), shall Chair the Area Committee (AC). The FOSC shall designate an individual from each agency other than the Coast Guard to serve as vice-chair of the Area Committee. The FOSC may designate multiple vice-chairs, if appropriate. The state representatives to the Area Committee should be able to present and defend state interests in response to related programs, e.g., historic preservation and Coastal Zone Management. For local membership, the FOSC may appoint representatives from local counties, cities, and towns who are responsible for coordinating environmental issues and emergency response operations. Coordination with Local Emergency Planning Committees (LEPCs) and State Emergency Response Commissions (SERCs) is paramount for a successful oil and hazardous substance Area plan. Other individuals chosen to serve on the Area Committee should represent agencies with an environmental responsibility within the Area and should be representative of all levels of government.

## 1323 Executive Secretary / Coordinator

The AC Coordinator from USCG Sector Key West will coordinate with state agencies to prepare meeting agendas, schedules, and meeting notifications. The USCG will record, draft, and publish meeting summaries and attendance roster and coordinate remote participation access for meeting attendance.

## 1324 Members and Members-at-Large

A list of FKAC members can be found on Table 3, and members-at-large on Table 4 in Section 1800 of this document. These lists will be maintained by the AC Coordinator.

## 1325 Subcommittees

There are currently no established subcommittees.

## 1330 Meetings

AC meetings are open meetings. The USCG FOSC Chair shall attend/lead each meeting and provide an opportunity for participation by each regulatory member, each non-regulatory participant, and any public attendees; ensuring adherence to the agenda; and maintaining order. In the absence of the FOSC, these duties shall be performed by the Sector Key West Deputy Sector Commander, who serves as the Alternate FOSC.

## 1331 Meeting Frequency

AC meetings shall be held at least semi-annually.

## 1333 Remote Access Attendance

The USCG will provide remote access availability to AC members, and participants who are unable to attend meetings in person to maximize stakeholder participation and communication. USCG Sector Key West currently utilizes Microsoft Teams to provide remote access.

## 1340 FOSC Annual Report

In coordination with the AC Vice-Chairs, Sector Key West shall submit an AC Annual Report emphasizing activities and best practices for the previous calendar year NLT 1 April of the following year to USCG D7 (drm) for review and endorsement. USCG D7 will review and route AC Annual Reports through USCG Atlantic Area to USCG Headquarters Office of Marine Environmental Response Policy (CG-MER) for final approval and compilation of nation-wide lessons learned and best practices.

# 1400 Validation and Testing

The FKACP shall be updated annually. The FKACP shall be reviewed and approved by the FKAC and USCG D7 every five years.

## 1410 Annual Updates

The FKAC will review the ACP and document any changes or updates in the Record of Changes page. Additionally, and at a minimum, the AC will update the ACP version number and contact information; confirm phone numbers, addresses, links, and notification procedures; and incorporate lessons learned as a result of real-world events and/or exercises. Annual updates will continue to be managed locally between USCG Sector Key West, Vice-Chair, and AC and be completed by 1 May.

## 1420 Plan Approval and Coast Guard National Review Panel Review

In coordination with the Chair, Vice-Chair, and other members of the AC, USCG D7 formally reviews and approves coastal ACPs every five years. After approval, USCG D7 submits the ACP for national review by the CGNRP. The CGNRP, comprised of CG-MER, USCG Atlantic and Pacific Areas, National Strike Force Coordination Center, and District representatives, convene annually to review selected ACPs nation-wide. Nationwide, each coastal ACP is on a 5-year CGNRP review schedule.

Additional CGNRP information and requirements, including specific scheduling and expectations will be coordinated from USCG D7 to USCG field units.

## 1430 Geographic Response Strategies (GRP) Validation

GRSs found in Section 4600 contain a set of planned site-specific response strategies that are designed to give responders information to minimize damage to sensitive resources in the first few hours following a spill. Design and information included within GRSs are typically developed using neutral weather conditions and mean-average tidal data and assume a specific location and equipment use. Once adopted and implemented into the FKACP, the minimum level of GRS validation has been met, however, it is recommended that the FKAC determine additional validation methodologies as appropriate, to determine GRS accuracy and applicability over time.

A tiered methodology for GRS validation from the lowest level to the highest include: desktop evaluation by Subject Matter Experts (SMEs), on-site visual inspection by SMEs, computer simulations, equipment deployment, Full-Scale Exercises (FSE), and Real-World Events (RWEs).

## 1440 Area PREP Exercises

Per the National Preparedness for Response Exercise Program (PREP) Guidelines, which provides the framework for an effective oil spill and hazardous substance response exercise program, the FKAC shall hold three annual Incident Management Team (IMT) Tabletop Exercises (TFLs) and one Full-Scale Exercise (FSE) per 4-year period.

## 1441 Exercise Schedule

USCG D7 (drm) will maintain the Area Exercise schedule and ensure visibility by the FKAC and PREP Compliance, Coordination and Consistency Committee (PREP 4C). The FKAC will validate the proposed timeframe and identify the industry plan holder who will participate in each PREP exercise. Any schedule change requests shall be routed to USCG D7 (drm).

### 1442 Documentation

Additional PREP-related exercise requirements, including development of Concept of Exercise (COE), After Action Report (AAR), Corrective Actions (CAs), and Real-World Event (RWE) credit requests will be coordinated from USCG D7 to USCG field units.

## 1500 The National Response System (NRS)

The National Response System (NRS) is a three-tiered response and preparedness mechanism that supports the predesignated FOSC in coordinating national, regional, and local government agencies, industry, and the responsible party during response operations. The NRS was developed to coordinate all government agencies with the responsibility for environmental protection, in a focused response strategy for the immediate and effective clean-up of an oil discharge or a hazardous substance release.

The NRS is designed to support the FOSC and facilitate responses to a discharge or substantial threat of discharge of oil or a release or substantial threat of release of a hazardous substance. The NRS supports the responsibilities of the FOSC, under the direction of the Clean Water Act (CWA) as amended by OPA. When appropriate, the NRS is designed to incorporate a "unified command and control support mechanism" (Unified Command) consisting of the FOSC, the State On-Scene Coordinator (SOSC), and the Responsible Party's Incident Commander (IC). The UC structure is further described under Sub-section 5410 of this ACP. Within an established UC, the FOSC plans and coordinates response strategy on scene, using the support of the National Response Team (NRT), Regional Response Team (RRT), Area Committees, and responsible parties, as necessary, to supply trained personnel, equipment, and scientific support to complete an effective response to any oil discharge or hazardous substance release.

### 1510 Contingency Plans

Contingency plans serve to formalize and document activities to be undertaken to plan for incidents and in the event of an incident. The following diagram depicts the relationship of many of the response plans discussed below.

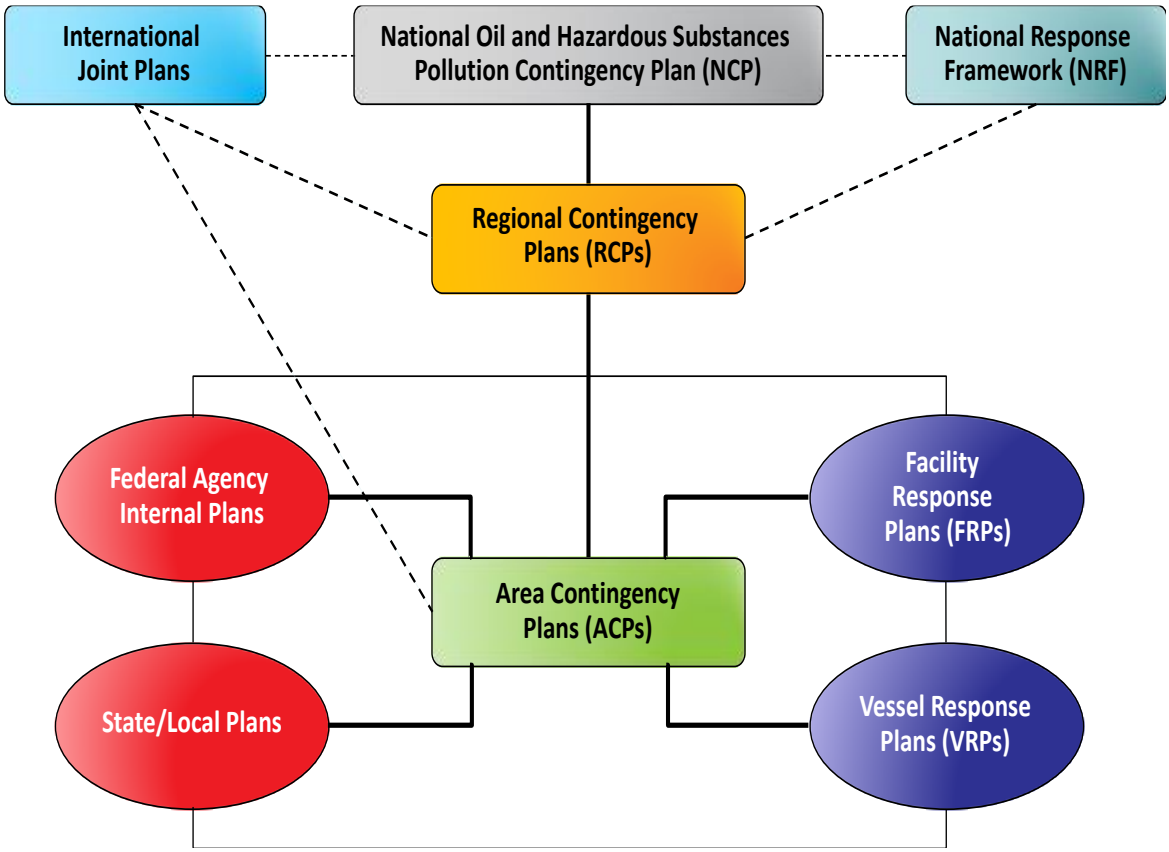


Figure 1: Relationship of Plans

## 1511 National, Regional, and Area Contingency Plans

There are three levels of contingency plans under the NRS: The National Contingency Plan (NCP), Regional Contingency Plans (RCP), and Area Contingency Plans (ACPs). The NCP addresses the national response structure and identifies requirements for regional and area preparedness development. RCPs provide the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, or contaminants by the Regional Response Team (RRT). Coastal ACPs are developed under the leadership of the USCG FOSC, following guidelines within the NCP and RCP, as applicable. Composed of federal, state, and local governmental representatives, the Area Committee develops an ACP for responses to oil discharges and hazardous substance releases within their geographic area.

## 1512 Local Plans

Local Emergency Planning Committees (LEPCs) are responsible for the development and maintenance of local emergency response plans in accordance with the Emergency Planning and Community Right-to-Know Act (EPCRA), Sections 301 to 303. LEPC membership includes various representatives from local governmental agencies, emergency responders, environmental groups, and local industry. These emergency plans include, among other things, the identity and location of hazardous materials, procedures for immediate response to a chemical accident, ways to notify members of the public of actions to take in the event of a discharge or release, names of coordinators at plants, and schedules for testing the plan. The local emergency response plan is reviewed by the State Emergency Response Commission (SERC). RRTs may review these plans and provide assistance if the SERC or LEPC makes such a request. Federal contingency plans provide for coordination with local governments.

## 1513 International Plans

### 1513.1 CUBUS Plan

Cooperation Agreement Between the United States of America and the Republic of Cuba on Preparedness for and Response to Pollution Caused by Spills of Hydrocarbons and Other Noxious and Potentially Hazardous Substances in the Gulf of America and Straits of Florida. The U.S. Coast Guard or the National Staff of the Civil Defense and the Ministry of Transport of Cuba On-Scene Coordinator receiving notification of a pollution event in his/her Area that may affect the Area of the other Party to the Agreement immediately assesses the event and commences response operations in accordance with his/her national response system. If a coordinated response is requested by the On-Scene Coordinator, the Joint Planning Team evaluates the request and determines whether a coordinated response is appropriate. The U.S. Coast Guard Seventh District Commander, and the Chief of the National Staff of the Civil Defense of Cuba are responsible for the execution of the CUBUS Plan.

## 1514 Responsible Party Plans

Facility and tank vessel response and non-tank vessel plan regulations, including plan requirements for the Coastal Zone, are located in 33 C.F.R. 154 and 33 C.F.R. 155 respectively, 30 C.F.R. 254 for off-shore facilities, 49 C.F.R. 194 for pipelines, and 49 C.F.R 1304 for motor vehicles and rail cars transporting oil in bulk. Facility response plan regulations for the inland zone are located in 40 C.F.R. 112. Complex facilities are facilities that are regulated by two or more federal agencies; e.g., the USCG, the EPA, and possibly also U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (DOT PHMSA). Therefore, they would have a facility response plan meeting the requirements of 33 C.F.R 154, 40 C.F.R. 112, and 49 CFR 194 or an Integrated Contingency Plan (ICP), capturing multiple federal agency requirements in one plan.

# 1600 National Response Framework (NRF)

The National Response Framework (NRF) is a guide which provides foundational emergency management doctrine for how the nation responds to many types of incidents, including pollution incidents. The NRF is often activated in anticipation of, or following, a storm event (tropical storm or hurricane) or other natural disaster (flooding event, tornados, etc.). The structures, roles, and responsibilities described in the NRF can be partially or fully implemented in the context of a threat or hazard, in anticipation of a significant event, or in response to an incident. Implementation of NRF structure and procedures allows for a scaled response, delivery of specific resources and capabilities, and a level of coordination appropriate to each incident. Pollution response, under the umbrella of the NRF is possible using plans, capabilities, and partnerships forged in accordance with the NCP, combined with the effective use of the ICS.

Other useful natural disaster response resources include the National Response Team Abandoned Vessel Authorities and Best Practices Guidance and the NRF's Emergency Support Function (ESF) #10 – Oil and Hazardous Materials Response Annex. For information and guidance pertaining specifically to the D7 coastal zone, please refer to the Seventh Coast Guard District Natural Disaster Pollution Response guidance document located in Annex 13 of the RRT-4 RCP.

## 1610 Nuclear/Radiological Incident Annex

The Nuclear/Radiological Incident Annex (NRIA) to the NRF describes the policies, situations, concepts of operations, and responsibilities of the federal departments and agencies governing immediate response and short-term recovery activities for releases of radioactive materials. These incidents may occur on federally-owned or -licensed facilities, privately owned property, urban centers, or other areas and may vary in severity from the small to the catastrophic. The incidents may result from inadvertent or deliberate acts. The NRIA applies to incidents where the nature and scope of the incident requires federal response to supplement the state, tribal, and/or local incident response.

**Note**: The Turkey Point Nuclear Plant is a nuclear power station within Biscayne Bay, about 24 miles south of Miami within Miami-Dade County. Any releases from this facility would impact the Florida Keys, within the Sector Key West's area of responsibility.

## 1700 National Incident Management System (NIMS)

The National Incident Management System (NIMS) guides all levels of government, nongovernmental organizations and the private sector to work together to prevent, protect against, mitigate, respond to and recover from incidents.

NIMS provides stakeholders across the whole community with the shared vocabulary, systems and processes to successfully deliver the capabilities described in the National Preparedness System.

NIMS defines operational systems that guide how personnel work together during incidents.
More specifics on using NIMS ICS for command and coordination in an oil spill or hazardous substance release will be discussed in Section 5400.

## 1800 Relationship to other Marine Transportation System (MTS) Focused Response Plans

Depending on the size and complexity of an oil spill discharge or hazardous substance release, the following contingency plans developed for the Key West Captain of the Port (COTP) Zone may be activated to minimize disruption of the Marine Transportation System (MTS):

- The MTS Recovery Plan provides planning and coordination to facilitate the recovery of the MTS following any man-made or natural disaster.
- The Salvage Response Plan provides planning and coordination to facilitate salvage operations in conjunction with Annex E, the Marine Fire Fighting Plan (MFF).

| Table 3: Area Committee Members | | |
|---|---|---|
| **Below is list of *appointed* Area Committee Members:** | | |
| 1. | Federal | Coast Guard Sector Key West<br>National Parks Service<br>Naval Air Station Key West<br>NOAA Florida Keys National Marine Sanctuary<br>NOAA National Marine Fisheries Service<br>United States Fish and Wildlife Service |
| 2. | State | Florida Department of Environmental Protection<br>Florida Fish and Wildlife Conservation Commission |
| 3. | Local | City of Key West<br>City of Layton<br>City of Marathon<br>Key Colony Beach<br>Monroe County Emergency Management<br>Monroe County Sheriff's Office<br>Village of Islamorada |

| Table 4: Area Committee Members-at-Large |
|---|

| Below is a list of Area Committee ***Members-at-Large:*** | | |
|---|---|---|
| 1. | Non-Government Organizations | Dolphin Connection<br>Dolphin Cove<br>Dolphin Research Center<br>Dolphins Plus<br>Island Dolphin Care<br>Marathon Turtle Hospital<br>Theater of the Sea |
| 2. | Industry | Key West Pipeline Company<br>Keys Energy Services |

# 2000 Geographic Jurisdiction and Boundaries

## 2100 Geographic Area Covered

The Key West COTP Zone is defined in 33 C.F.R. 3.35-40 and depicted in Figure 4 below. Within this COTP Zone, the USCG COTP/FOSC area of responsibility for the FKACP planning area is the Coastal Zone (see sub-section 2120 below). The precise inland zone and coastal zone response boundary is agreed upon between the U.S. Coast Guard Seventh District and EPA Region 4 and is documented in the Memorandum of Agreement (MOA) dated 14 Apr 2010. Figure 2 below depicts the 13 Regional Response Teams and Figure 3 depicts the U.S. Coast Guard Areas and Districts.

### 2110 Inland Zone Boundary Designation

The U.S. Environmental Protection Agency (EPA) Region 4 provides the predesignated FOSC for pollution response in the Inland Zone. All discharges or releases, or substantial threats of such discharges or releases of oil or hazardous substances within or threatening the Inland Zone are the responsibility of the EPA. Included are discharges and releases from unknown sources or those classified as "mystery spills."

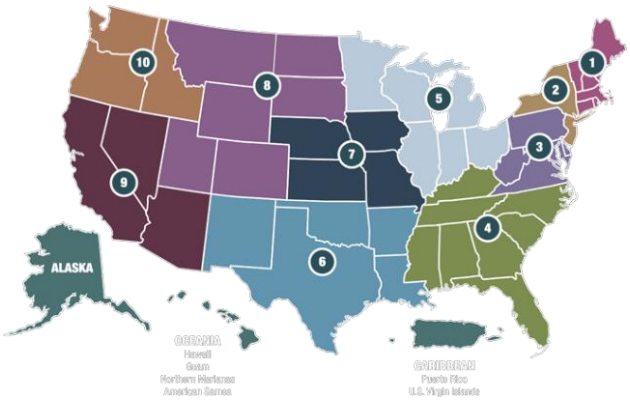


Figure 2: RRT Areas


Figure 3: U.S. Coast Guard Districts

### 2120 Coastal Zone Boundary

The relevant coastal USCG COTP is the predesignated FOSC for pollution response in the Coastal Zone. All discharges or releases, or substantial threats of such discharges or releases of oil or hazardous substances originating within the Coastal Zone are the responsibility of the USCG FOSC. Included are discharges and releases from unknown sources or those classified as "mystery spills." Specifically, the Coastal Zone description for the SKW FOSC includes:

- As defined in the November 3, 1999 Memorandum of Understanding (MOU) between the U.S. EPA (Region IV) and the Seventh U.S. Coast Guard District, there are no defined inland areas in the Florida Keys which EPA would be the pre- designated FOSC. Therefore, the SKW COTP will be the pre-designated FOSC for oil spills occurring within the SKW AOR.
- The boundaries for SKW hazardous substance release response is the same as for the SKW FOSC area for oil spills. Therefore, the SKW COTP will be the pre- designated FOSC for hazardous substance releases occurring within the SKW AOR.
- Where the Coastal Zone is defined by a body of water such as a bay or lake, it includes small bays or lakes encompassed therein, but does not include waters tributary thereto unless specifically named.
- When a roadway is used to delineate a boundary, that boundary shall be to, but shall not include, the roadway.

Any pollution incident taking place in an area outside the boundaries listed above fall under EPA FOSC jurisdiction.

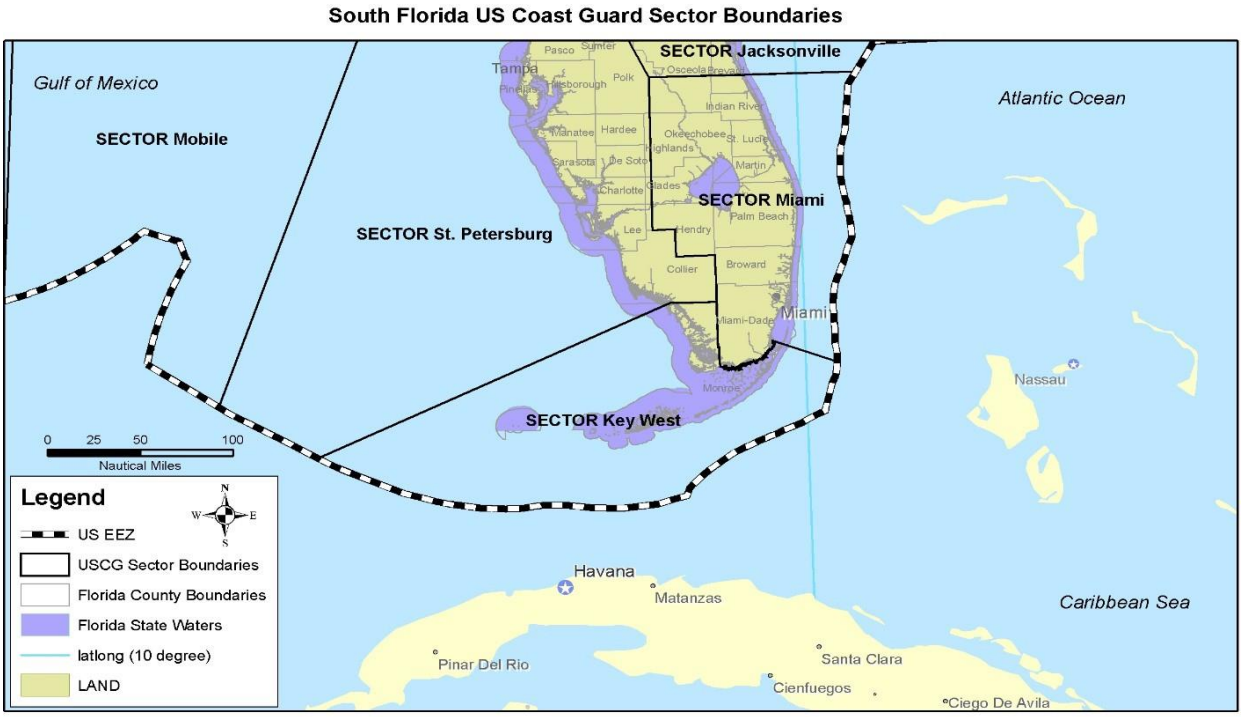


Figure 4: Map of Sector Key West COTP Zone

SKW's office is located in Key West, FL. Its Area of Responsibility is coterminous with its Marine Inspection Zone and Captain of the Port Zone, which start at the outermost extent of the EEZ at latitude 25°11'34" N, longitude 79°41'31" W, proceeding northeast to the Miami-Dade County, FL boundary at latitude 25°24'52" N, longitude 80°19'39" W; thence west along the southern boundary of Miami-Dade County to the western boundary at latitude 25°10'36" N, longitude 80°51'29" W; thence north along the western boundary of Miami-Dade County to the southern boundary of Collier County, FL; thence west along the southern boundary of Collier County to latitude 25°48'12" N, longitude 81°20'39" W; thence southwest to the outermost extent of the EEZ at latitude 24°18'57" N, longitude 84°50'48" W; thence east and then north along the outermost extent of the EEZ to the point of origin. Florida state waters extend 3 nautical miles seaward from

the Florida Keys on the Atlantic side; on the Gulf of America side, state waters extend out to 9 nautical miles.

### 2130 Sub-geographic Areas

The coastal zone counties covered in the FKACP planning area include:

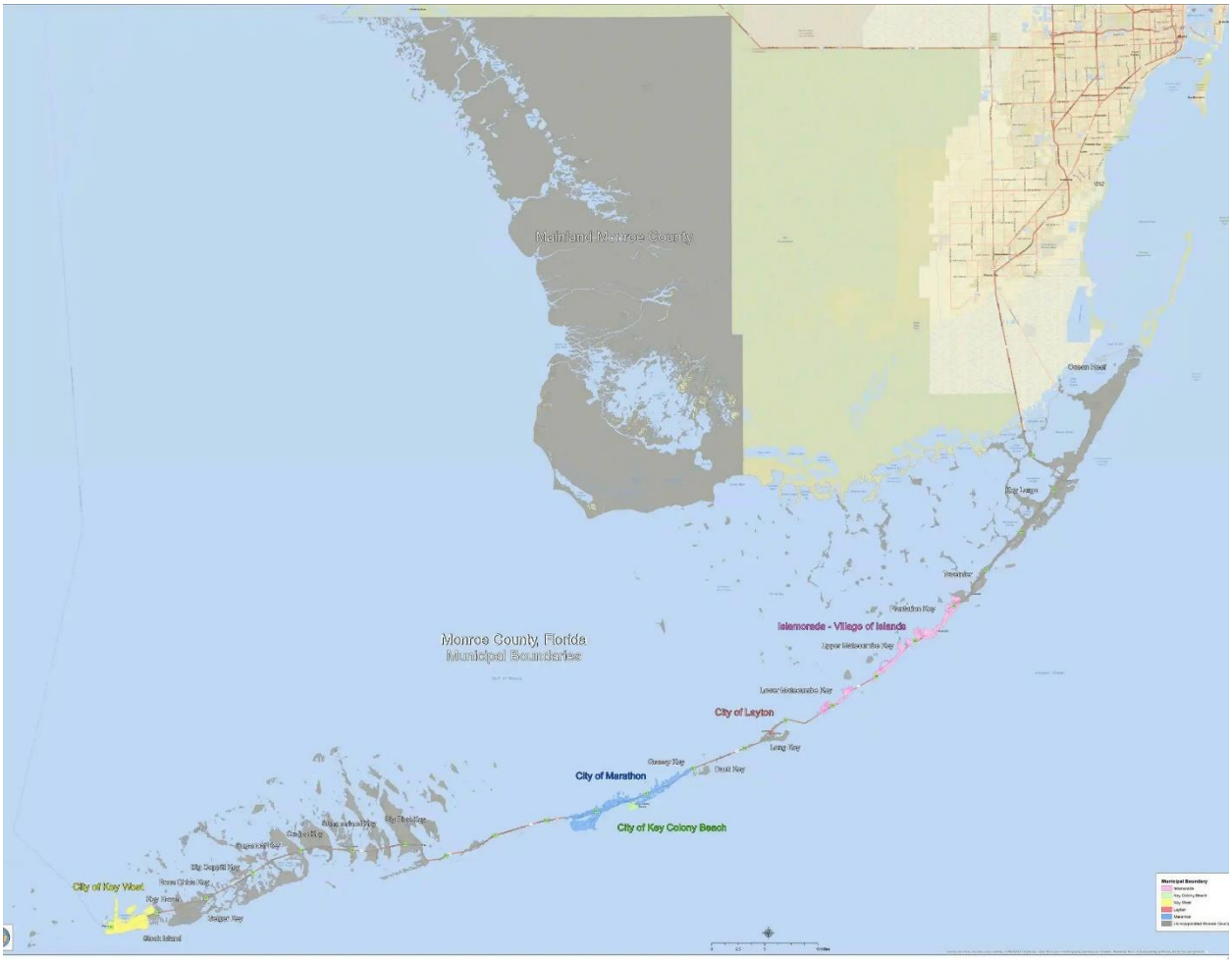


Figure 5: Area Counties

| Table 5: Area Counties | |
|---|---|
| 1 | Monroe County |

# 3000 Roles and Responsibilities

## 3100 Federal Agency Roles and Responsibilities

Nationally, the U.S. Coast Guard (USCG) has designated its coastal Captains of the Port (COTP) as the predesignated Federal On-Scene Coordinator (FOSC) within the coastal zone. As such, the USCG FOSC is the Chair of the respective Area Committee (AC) and oversees the development, maintenance, and implementation of the Area Contingency Plan (ACP) for their COTP zone.

### 3110 Regional Response Team (RRT-4)

The functional role of RRTs in each federal region has two principal components. One component is the standing team whose duties involve communication systems and procedures, planning, coordination, training, evaluation, preparedness, and related matters within each RRT's respective

region. The second component of the RRT is an incident-specific team that may be assembled, as determined by the operational requirements of a response to a specific discharge or release. The RRT has responsibility for developing an RCP and for assisting the FOSC when guidance, coordination, or resources are needed to provide an adequate response to an incident. The RRT includes a representative from each state within the federal region, and representatives from 15 federal agencies and federally recognized tribal representatives available to provide assistance or resources during such a response. EPA and the USCG co-chair the RRT, which does not respond directly to the scene, but instead responds to developments and requests from the FOSC in accordance with the FKACP. RRT-4 normally holds semiannual meetings in the spring and fall of each year.

Refer to the RRT-4 Regional Contingency Plan Volume 1 and the NRT website for a list of federal agencies and their roles and responsibilities related to ACP planning, preparedness and response.

# 3200 State Agency Roles and Responsibilities

## 3210 Florida

## 3211 Florida Department of Environmental Protection (FDEP)

Chapter 376.021 (4), Florida Statute (F.S.) designates the Florida Department of Environmental Protection (FDEP) as the lead agency in responding to all discharges of pollutants that occur in coastal waters, estuaries, tidal flats, beaches and lands adjoining the seacoast of Florida. FDEP is responsible for reviewing permit applications, inspecting permitted facilities, responding to reports of environmental damage, and conducts compliance assistance and enforcement in the Florida Keys. The State Warning Point is the State of Florida's emergency notification center and will contact the appropriate FDEP office and other emergency responders in the event of an emergency. FDEP Office of Emergency Response is a member of the State Emergency Response Team (SERT) under Emergency Support Function 10 (ESF 10) of the National Response Framework (NRF).

## 3212 Florida Fish and Wildlife Conservation Commission (FWC)

FWC is responsible for protecting threatened and endangered species and habitats; managing captive and nonnative wildlife; investigating fish and wildlife crimes; protecting and preserving cultural and natural resources; and protecting state lands and water quality.

## 3213 Florida Division of Emergency Management

The division is responsible for coordinating the State's efforts throughout the emergency management cycle to prepare for, prevent where possible, respond to, recover from and mitigate against to lessen the effects of man-made or natural disasters that threaten Florida.

# 3300 Local Agency Roles and Responsibilities

The focus of local responders is usually directed toward abating immediate public safety threats. The degree of local response will depend upon the training and capabilities of local responders relative to the needs of the specific emergency.

In some cases, the need may be identifying the nature and scope of the hazard. This information is then passed on to state and federal responders who are activated to address the situation with specific expertise and/or capabilities.

Often, local agencies take mitigating actions of a defensive nature to contain the incident and protect the public. In many instances, responsible parties or local agencies are capable of an aggressive

response and quick abatement of immediate hazards. In these cases, local authorities usually rely on state and federal responders to ensure that cleanup is complete, and remediation is sufficient.

A major role of local organizations during all emergency incidents is to provide security for all on-scene forces and equipment. For large incidents, help is often requested through the state emergency management agencies. Activities include establishing local liaison with hospital, emergency services, and police personnel, as well as restricting entrance to hazardous areas to all but essential personnel.

Coordination with the local governmental organizations of counties, cities, or towns is especially important for traffic control, land access, and disposal of oil or hazardous materials removed during response operations.

Landowners are also encouraged to participate in planning and response. Landowners are a valuable resource due to their local knowledge. The landowner, to the extent practical and based on the FOSC's judgment, may be included in the planning and response activities, under direction of the FOSC.

Landowners who provide access to or are affected by a discharge or release have jurisdiction over their lands and warrant special consideration by the responding agency or Unified Command. In the event an incident poses, or has the potential to pose, an imminent threat to human health or the environment, it is in the best interest of the landowner to provide access to an on-scene coordinator.

## 3400 Natural Resource Trustees

CERCLA and OPA authorize the United States, individual States, and Indian Tribes to act on behalf of the public as Natural Resource Trustees for natural resources (Natural Resource Trustees or Trustees) under their respective trusteeships (CERCLA §107(f)(1); OPA §1006(c)). OPA also authorizes foreign governments to act as Trustees (OPA §1006 [b][5]). Following a hazardous substance release or oil discharge, Natural Resource Trustees have responsibilities for assessing resulting injury to the environment. Natural Resource Damage Assessment (NRDA) is the process by which trustees collect, compile, and evaluate data to determine the extent of injury to natural resources. The information gathered is used to assess damages, determine the restoration required to compensate for the injured natural resources and lost use of resources, and seek recovery of those damages from the responsible party. NRDAs are typically initiated concurrent with response activities.

Initiation of a NRDA usually involves acquiring data both during and after a spill to document: (1) oil or hazardous substances in water, sediments, soil, and organisms; (2) effects on fish, wildlife, and/or their habitat; (3) exposure pathways; and (4) measures taken to prevent or reduce immediate migration of oil or hazardous substances onto or into a trust resource. To avoid duplication of response activities specified in a NRDA with other response activities, all sampling and field work by Natural Resource Trustees should be coordinated with the lead response agency. If natural resources are injured by a discharge or release of a mixture of oil and hazardous substances, DOI regulations apply. NOAA regulations apply only in assessing damages that may result from discharges of oil.

Trustees often have information and technical expertise about the biological effects of hazardous substances, as well as locations of sensitive species and habitats, that can assist in characterizing the nature and extent of site-related contamination and impacts. Coordination at the investigation and planning stages provides the Trustees early access to information they need to assess injury to natural resources.

# 3500 Technical Support Available to the FOSC

Various sources of technical/scientific and administrative support are available to the Federal On-Scene Coordinator (FOSC) either through telephone contact, virtual means, or actual dispatch of teams to the field. Support agencies and groups available to the FOSC include the following.

## 3510 Federal Agency Scientific/Technical Support

## 3511 U.S. Coast Guard (USCG)

### 3511.1 The National Strike Force Coordination Center (NSFCC)

The NSFCC manages the NSF which is authorized as the National Response Unit required under OPA, with responsibility for administering the USCG Strike Teams, and maintaining response equipment inventories and logistical networks. The NSFCC offers the technical assistance and equipment for spill response, assistance in coordinating resources during oil discharge response, Area Contingency Plan (ACP) or Regional Contingency Plan (RCP) review, coordination of spill response resources information, and inspection of Oil Spill Removal Organization (OSRO) response equipment. Strike Teams provide trained personnel and specialized equipment to assist the FOSC in training for spill response, stabilizing and containing the spill, and monitoring or directing response actions of the responsible parties (RPs) and/or contractors.

#### 3511.1.1 The USCG National Strike Force (NSF)

The NSF's mission is to provide highly trained, experienced personnel and specialized equipment to the Coast Guard and other federal agencies to facilitate preparedness and response to oil and hazardous substance pollution incidents in order to protect public health and the environment. The NSF's area of responsibility (AOR) covers all Coast Guard Districts and Federal Regions.

#### 3511.1.2 USCG Strike Teams (Atlantic, Gulf, and Pacific)

The three USCG Strike Teams are available 24 hours a day. If the Strike Team contacted is already committed, another Strike Team will be deployed. Each Strike Team maintains trained personnel and specialized equipment to assist with training in responding to spills, stabilizing and containing spills, and monitoring and/or directing response actions of the RPs and/or contractors. The Gulf Strike Team, based in Mobile, Alabama, provides response coverage to Florida.

#### 3511.1.3 Public Information Assist Team (PIAT)

PIAT is an element of the NSFCC staff available to assist the FOSC to meet the demands for public information during a response or exercise. PIAT provides interagency crisis communication team(s) and technical expertise to assist ICs and FOSCs meet their objectives of truth and transparency of operations for the public. PIAT provides emergency risk communication support to ICs and FOSCs during incidents such as oil spills, hazardous substance releases, hurricanes, floods, or other disasters. Its use is encouraged any time the FOSC requires outside public affairs support. Requests for PIAT assistance may be made through the NSFCC or National Response Center (NRC). See the Spill of National Significance (SONS) Public Affairs Reference for more information.

#### 3511.1.4 Incident Management Assistance Team (IMAT)

The IMAT was developed by the USCG to supply a ready-made team of highly trained individuals to assist the local Incident Command (IC) in dealing with a major incident. The IMAT is located in Norfolk, VA. The team is trained for initial quick response to a regionally or nationally significant event. The team consists of Incident Command Systems (ICS) process experts that can quickly set-up and assist in transitioning from the initial emergency phase to a more sustained planning process. The IMAT deploys with a limited amount of equipment to ensure ICS functionality within an Incident Command Post (ICP).

### 3511.2 National Pollution Funds Center (NPFC)

NPFC is responsible for implementing those portions of OPA Title I delegated to the Secretary of the Department in which the USCG is operating. NPFC is responsible for addressing funding issues

arising from actual and potential discharges of oil. Responsibilities of the NPFC include: (1) issuing Certificates of Financial Responsibility (COFRs) to owners and operators of vessels to pay for costs and damages incurred by their vessels as a result of oil discharges, (2) providing funding to various response organizations for timely abatement and removal actions related to oil discharges, (3) providing equitable compensation to claimants who sustain costs and damages from oil discharges when the RP fails to do so, (4) recovering monies from persons liable for costs and damages resulting from oil discharges to the full extent of liability under the law, and (5) providing funds to initiate Natural Resource Damage Assessment (NRDA) activities.

### 3511.3 USCG District Response Group (DRG)

DRGs assist the FOSC by providing technical assistance, personnel, and equipment. Each DRG consists of the combined USCG personnel and equipment, including marine firefighting equipment, of each port in the district and a district response advisory team. Specifically, the USCG's Seventh District Response Advisory Team (DRAT) and the Incident Management and Preparedness Advisor (IMPA) provide pollution planning, preparedness, and response policy guidance and assistance to an FOSC and staff on a regular basis.

## 3512 U.S. Environmental Protection Agency (EPA)

### 3512.1 Environmental Response Team (ERT)

In the event of a continuing release or discharge, the FOSC has access to EPA's ERT, stationed in Edison, New Jersey; Cincinnati, Ohio; Erlanger, Kentucky; Las Vegas, Nevada; and Research Triangle Park, North Carolina. The ERT provides Scientific Support Coordinators (SSC) with expertise in treatment technology, biology, chemistry, hydrology, geology, and engineering. The ERT also has access to special decontamination equipment and can provide advice on a wide range of issues such as a multimedia sampling and analysis program, on-site safety (including development and implementation plans), cleanup techniques and priorities, water supply decontamination and protection, application of dispersants, environmental assessment, degree of cleanup required, and disposal of contaminated material. The FOSC may designate an SSC as principal advisor on scientific issues who also communicates with the scientific community and assists in requests to state and federal agencies.

### 3512.2 Chemical, Biological, Radiological, and Nuclear (CBRN) Consequence Management Advisory Division (CMAD)

The CBRN CMAD, present at five geographic locations, provides 24/7 scientific and technical expertise to the FOSC or response customer for all phases of consequence management. With a focus on operational preparedness, CBRN CMAD facilitates the transition of the latest science and technology to the field response community to provide tactical options for screening, sampling, monitoring, decontamination, clearance, waste management, and toxicological/exposure assessment during decontamination of buildings or other structures following an incident involving releases of radiological, biological, or chemical contaminants. CBRN CMAD maintains critical partnerships with: (1) EPA's National Homeland Security Research Center and the EPA's special teams; (2) other federal partners including the U.S. Department of Homeland Security (DHS), Federal Bureau of Investigation (FBI), DoD, and Centers for Disease Control and Prevention (CDC)/ Department of Health and Human Services (HHS); and (3) international partners.

### 3512.3 Radiological Emergency Response Team (RERT)

RERTs have been established by EPA's Office of Radiation Programs (ORP) to provide response and support during incidents or at sites containing radiological hazards. Expertise is available in radiation monitoring, radionuclide analysis, radiation health physics, and risk assessment. RERTs can provide on-site support including mobile monitoring laboratories for field analysis of samples as well as fixed laboratories for radiochemical sampling and analyses. Request for support may be made 24 hours a day via the NRC or directly to the EPA Radiological Response Coordinator in the ORP.

## 3513 National Oceanic and Atmospheric Administration (NOAA)

NOAA provides scientific support for responses and contingency planning in coastal and marine areas, including assessments of the hazards that may be involved, predictions of movement and dispersion of oil and hazardous substances through trajectory modeling, and information on the sensitivity of coastal environments to oil or hazardous substances. NOAA provides scientific expertise on living marine resources it manages and protects. It also provides information on actual and predicted meteorological, hydrologic, ice, and oceanographic conditions for marine, coastal, and inland waters, as well as tide and circulation data. The Secretary of the U.S. Department of Commerce (DOC), through NOAA, also acts as trustee for natural resources managed or controlled by DOC, including their supporting ecosystems.

### 3513.1 Scientific Support Coordinators (SSC)

The SSC, in accordance with the National Contingency Plan (NCP), will provide the FOSC scientific advice regarding the best course of action during a spill response. The SSC will help facilitate consensus from the Federal natural resource management agencies and provide spill trajectory analysis data, information on the resources at risk, weather information, tidal and current information, etc. The SSC will be the point of contact for the Scientific Support Team from NOAA's Hazardous Material Response and Assessment Division. The FOSC's Guide to NOAA Scientific Support outlines all the products and services the NOAA SSC can provide for planning and response activities.

The NOAA SSC can provide training and technical expertise with Shoreline Cleanup Assessment Technique (SCAT). The Shoreline Assessment Manual, updated August 2013 by NOAA/HAZMAT, outlines methods for conducting shoreline assessment after an oil spill.

### 3513.2 National Weather Service (NWS)

NWS, a federal organization within NOAA, can provide various types of support to an Incident Command (IC)/Unified Command (UC) operating in the Florida Keys area through its Key West, FL office. The IC/UC will be provided with a direct unlisted number to the lead forecaster's desk, through which continuous information on wind speeds, temperatures, and other atmospheric data can be obtained.

## 3514 U.S. Department of the Interior (DOI)

DOI has jurisdiction over the National Park System, National Wildlife Refuges, fish hatcheries, and public lands. The Regional Environmental Officer (REO) manages the department's response programs for oil and hazardous substance spills and oversees the department's responsibilities as a trustee for natural resources. The DOI may become involved in spill response once contacted through the REO who is a designated member of RRT-4. The REO for RRT-4 is located in Albuquerque, New Mexico.

### 3514.1 U.S. Fish and Wildlife Service (USFWS)

The Secretary of the Interior acts as trustee for resources managed or protected by DOI Bureaus, including USFWS and Bureau of Reclamation (USBR). USFWS, an office within DOI, is responsible for the management of migratory birds, federally listed endangered and threatened species, and interjurisdictional fishes within FKACP planning area. National Wildlife Refuge lands established in/near the ACP planning area include:

- **Key West National Wildlife Refuge**
- **Great White Heron National Wildlife Refuge**
- **National Key Deer Refuge**

When a spill occurs, the appropriate USFWS office(s) will provide timely advice on measures necessary to protect wildlife from exposure, as well as priority and timing of such measures. Protective measures may include preventing the oil from reaching areas where migratory birds and other wildlife

are located or deterring birds or other wildlife from entering areas by using wildlife hazing devices or other methods.

If exposure of birds and other wildlife to oil or hazardous substances cannot be prevented, an immediate decision will be made regarding rescue and rehabilitation of "oiled" birds and other wildlife. Decisions to rescue and rehabilitate "oiled" wildlife must be made in conjunction with other federal and state natural resource management agencies. Wildlife rehabilitators will need federal and state permits to collect, possess, and band migratory birds and threatened/endangered species.

For more information see Florida's Wildlife Contingency Plan for Oil Spill Response which contains a Wildlife Response Plan Template and other useful information on wildlife response.

### 3514.2 U.S. Geological Survey (USGS)

USGS maintains expertise in water quality characterization, oil fingerprinting, submerged oil and oil-particle formation, transport and resuspension of oil in fresh waters, riverine two-dimensional (2D) particle transport/hydrodynamic simulations, ecotoxicology, time-of-travel studies for freshwater systems, and geospatial data collection of visible spill plumes applicable to spill response events in freshwater environments. In addition, USGS can provide biological survey assistance for natural resources and contaminants and contribute distribution information about sensitive species (e.g., birds, invertebrates). USGS also provides extensive expertise and information for natural resource damage assessments (NRDAs) (e.g., aerial surveys, abundance estimation, remote sensing, etc.).

### 3514.3 Bureau of Safety and Environmental Enforcement (BSEE)

BSEE works to promote safety, protect the environment, and conserve resources offshore through vigorous regulatory oversight and enforcement. BSEE's Offshore Regulatory Program develops standards and regulations to enhance operational safety and environmental protection for the exploration and development of offshore oil and natural gas on the U.S. Outer Continental Shelf (OCS). BSEE's regional office within the Gulf of America is located in New Orleans, LA.

## 3515 U.S. Department of Health and Human Services (HHS)

HHS, through the Agency for Toxic Substances and Disease Registry (ATSDR), serves the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and disease related to toxic substances. The ATSDR is directed by congressional mandate to perform specific functions concerning the effects on public health of ***hazardous substances*** in the environment. These functions include public health assessments of waste sites, health consultations concerning specific hazardous substances, health surveillance and registries, response to emergency release of hazardous substances, applied research in support of public health assessments, information development and dissemination, and education and training concerning hazardous substances.

Public Health Technical Specialists from the DHHS Centers for Disease Control and Prevention (CDC) and ATSDR can assist with environmental health support. Environmental Health Support Guidance for Florida is located in Annex DD.

### 3515.1 The National Institute for Occupational Safety and Health (NIOSH)

NIOSH provides national and world leadership to prevent work-related illness, injury, disability, and death by gathering information, conducting scientific research, and translating the knowledge gained into products and services, including scientific information products, training videos, and recommendations for improving safety and health in the workplace.

In response to requests from workers (or their representatives), employers, and other government agencies, NIOSH Health Hazard Evaluation scientists conduct workplace assessments to determine if

workers are exposed to hazardous materials or harmful conditions and whether these exposures are affecting worker health. NIOSH evaluates the workplace environment and health of employees by reviewing records and conducting on-site environmental sampling, epidemiologic surveys, and medical testing.

See the NIOSH Pocket Guide for more information.

## 3516 U.S. Department of Agriculture (USDA)

USDA has scientific and technical capability to measure, evaluate, and monitor, either on the ground or by use of aircraft, situations where natural resources including soil, water, wildlife, and vegetation have been impacted by hazardous substances and other natural or man-made emergencies. The USDA may be contacted through the U.S. Forest Service emergency staff officers who are the designated members of the RRT.

USDA maintains trusteeship of national forest, wilderness areas, and wildlife within USDA-controlled forests, archaeological sites, range and farm lands, fisheries, and lands enrolled in the Wetlands Reserve Program. Additionally, the USDA plays a key role in the closing and re-opening of fisheries before, during, and after clean-up operations.

## 3517 U.S. Department of Energy (DOE)

The Secretary of Energy has trusteeship over natural resources under its jurisdiction, custody, or control. DOE's landholdings include national research and development laboratories, facilities, and offices.

The DOE Office of Petroleum Reserves (OPR) oversees the Strategic Petroleum Reserve (SPR), the world's largest supply of emergency crude oil, which was established primarily to reduce the impact of disruptions in supplies of petroleum products and to carry out obligations of the United States under the international energy program.

## 3518 U.S. Department of Transportation (DOT)

DOT provides response expertise pertaining to transportation of oil or hazardous materials by all modes of transportation. Through the Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT-PHMSA offers expertise in the requirements for packaging, handling, and transporting regulated hazardous materials.

## 3519 U.S. Department of Defense (DoD)

### 3519.1 U.S. Army Corps of Engineers (USACE)

The Secretary of the DoD has trusteeship over the natural resources on all lands owned by DoD or the Army (including lands and facilities managed by the USACE, Navy, Air Force, and Defense Logistics Agency). These lands include military bases and training facilities, research and development facilities, and munitions plants. USACE has trusteeship over natural resources under its jurisdiction, custody, or control. USACE landholdings include national research and development laboratories, facilities, and offices.

### 3519.2 U.S. Navy Supervisor of Salvage (SUPSALV)

SUPSALV has an extensive salvage/search and recovery equipment inventory, and the requisite knowledge and expertise to support these operations including specialized salvage, firefighting, and petroleum, oil, and lubricants offloading capability even in open sea response incidents. SUPSALV can also provide equipment for training exercises in support of national and regional contingency planning objectives. The FOSC may request assistance directly from SUPSALV. Formal requests are routed through the Chief of Naval Operations.

### 3519.3 National Guard Civil Support Teams (CSTs)

CSTs were created in 1999 to respond to terrorist incidents involving WMD, as well as other disasters and catastrophic events, both natural and man-made. There are 57 CSTs located throughout the United States, with at least one in each state and territory. The mission of a CST is to support civil authorities at a domestic CBRNE (Chemical, Biological, Radiological, Nuclear, and high-yield Explosives) incident site with responsibilities such as identification and assessment of hazards, advising civil authorities, and facilitating the arrival of follow-on military forces during emergencies and incidents.

CSTs normally operate as a State asset, under the command and control of the State Governor, but upon deployment, the unit provides direct support to the IC. CSTs support local emergency responders (Fire, Police, and EMS), as well as State and Federal agencies such as the DOE, FBI, EPA and FEMA. The state of Florida has two CSTs, the 44th located at Camp Blanding in Stark, FL, and the 48th based in Clearwater, FL, which is the only maritime capable CST in the United States.

## 3520 Non-Governmental Organization (NGO), Academia, and Other Technical Support

## 3523 Volunteers

In times of crisis or trouble, many citizens feel compelled to help or lend their assistance and expertise to the response effort. This help can be welcome if the demands of an incident exceed the available resources or if a particular set of skills are in short supply. Volunteers can support response efforts in any number of ways such as conducting beach surveillance, providing logistical support, or assisting in the treatment of impacted wildlife. The decision to employ volunteers will take into account the benefits that might be gained weighed against safety and liability realities. The UC, in the early stages of the event, will make the decision whether volunteers will be employed and in which capacities they can serve. For more details about the use of volunteers, please refer to Voluntary Organizations Active in Disaster (VOAD), Annex G of this plan, and the National Response Team's Use of Volunteers Guidelines for Oil Spills.

## 3524 Certified Marine Chemist (CMC)

The United States Coast Guard and the Occupational Safety and Health Administration (OSHA) require that a certificate issued by a Marine Chemist be obtained before hot work or fire producing operations can be carried out in certain spaces aboard a marine vessel.

In complying with both the U.S. Coast Guard and OSHA regulations, the CMC applies the requirements contained in National Fire Protection Association Standard 306. NFPA 306, Control of Gas Hazards on Vessels, describes conditions that must exist aboard a marine vessel. A survey by the Marine Chemist ensures that these conditions are satisfied. In addition, a CMC is able to perform similar evaluations on other than marine vessels where an unsafe environment exists for workers, or hot work is contemplated on a system that might contain residues of a flammable or combustible product or material.

## 3530 Federal Agency Legal and Investigative Support

## 3531 U.S. Department of Justice (DOJ)

DOJ can provide expert legal advice on complicated legal questions arising from discharges or releases and federal agency responses. The DOJ represents the federal government, including its agencies, in litigation relating to discharges.

### 3531.1 Federal Bureau of Investigation (FBI)

The FBI, under the DOJ, is the lead federal agency for responding to threats from weapons of mass destruction (WMD). The Bureau investigates and collects intelligence on WMD-related threats and incidents to prevent attacks and respond to them when they occur. WMD Directorate (WMDD) is part

of the FBI's National Security Branch. The WMDD leads the FBI's efforts to mitigate threats from chemical, biological, radiological, nuclear, or explosive weapons. The WMDD provides leadership and expertise to domestic and foreign law enforcement, academia, and industry partners on WMD issues. The FBI approaches these issues through four major areas: preparedness, countermeasures, investigations/operations, and intelligence.

### 3532 U.S. EPA Criminal Investigations Division (EPA CID)

The EPA CID investigates allegations of criminal wrongdoing prohibited by various environmental statutes. Such investigations involve, but are not limited to, the illegal disposal of hazardous waste; the export of hazardous waste without the permission of the receiving country; the illegal discharge of pollutants to a water of the United States; the removal and disposal of regulated asbestos containing materials in a manner inconsistent with the law and regulations; the illegal importation of certain restricted or regulated chemicals into the United States; tampering with a drinking water supply; mail fraud, wire fraud, conspiracy and money laundering relating to environmental criminal activities. CID Special Agents are sworn federal law enforcement officers with statutory authority to conduct investigations, to make arrests for any federal crime, and to execute and serve any warrant.

### 3533 U.S. Coast Guard Legal

The Seventh Coast Guard District has a legal staff that is available to provide support to the USCG FOSC. Additionally, and as needed, USCG Atlantic Area and headquarters can provide legal assistance to the USCG FOSC.

### 3534 U.S. Coast Guard Investigative Service (CGIS)

CGIS Agents are available to investigate criminal violations of environmental laws enforced by the Coast Guard. CGIS should be notified and consulted regarding all cases that may be referred to the Department of Justice for criminal prosecution. CGIS Agents are trained criminal investigators who are familiar with the legal issues associated with prosecution of a criminal case. Additionally, CGIS Agents regularly work with agents of other Federal, State, and local law enforcement agencies and frequently become aware of violations of environmental laws and ongoing criminal investigations through these sources.

Unless expressly directed by the Chief of CGIS or higher authority, CGIS will not conduct an environmental crime investigation in a COTP zone without first notifying and, thereafter, coordinating with the COTP. Likewise, the COTP should avoid committing the Coast Guard to participate in criminal investigations, either solely or in coordination with other enforcement agencies, without first consulting the District Commander who will ensure appropriate coordination with CGIS. In the event exigent circumstances require the initiation of a criminal investigation before such notification or consultation can occur, the required communication must occur as soon as practical thereafter.

### 3535 National Transportation Safety Board (NTSB)

In accordance with the USCG/NTSB MOU and 46 C.F.R. 4.40-15(b) the NTSB shall conduct the investigation of certain major marine and public/nonpublic vessel casualties. Except for the preliminary investigation, a separate Coast Guard casualty investigation will not be conducted, nor will parties in interest be designated by the Coast Guard. Although these investigations are conducted by the NTSB in accordance with their procedures, the Coast Guard will participate fully as a party.

# 4000 Pre-spill Risk Analyses, Consultations, and Response Strategies

This Part of the ACP outlines emergency preparedness efforts within the FKAC planning area including identification of worst case planning scenarios for all transportation modes, pre-spill consultations, the establishment of priority protection areas, and the development of response strategies for consideration in the initial stages of an incident.

# 4100 Worst Case Planning Scenarios

As per the Clean Water Act, a Worst Case Discharge (WCD) is defined as, in the case of a vessel, a discharge in adverse weather conditions of its entire cargo, and in the case of an offshore facility or onshore facility, the largest foreseeable discharge in adverse weather conditions. The following tables identify WCDs for oil products and hazardous substances in the FK planning area.

## 4110 WCD Tables for Oil Products in FK Planning Area

| Table 6: Worst Case Discharges for FKACP Planning Area **(all transportation modes)** | | | | |
|---|---|---|---|---|
| **FOSC** Sector Key West | | | | |
| **Type** | **Owner / Operator Vessel / Facility Name** | **Location** | **Amount** | **Product** |
| **MTR Facility** | Keys Energy Services (In caretaker status as of MAR2022) | Stock Island, FL | 45,238 bbl 1,900,000 gal | Oil Products |
| **MTR Facility** | Faraldo Fuel Transport | Boca Chica, FL | 214 bbl 9000 gal | Oil Products |
| **Mobile MTR Facility** | Naval Air Station Key West | Key West, FL | 119 bbl 5,000 gal | Oil Products |
| **Pipeline** | Key West Pipeline Co. | Key West, FL | 905 bbl 38,025gal | JP5 |
| **MODU** | Offshore Oil Drilling Platform | Key West, FL | 75,000 bbl per day 3,150,000 gal | Oil Products |
| **Vessel** | Cargo Vessel / Striking the reef | Florida Keys | 10,000 gal per day | Oil Products |

## 4120 WCD Table for Hazardous Substances in FK Planning Area

Sector Key West does not have WCD for Hazardous Substances. See Annex D for Hazardous Substance Response reference.

## 4130 Area Planning and Risk Analysis

Additional risk analysis and area specific worst case scenario planning information for FKACP is located in Annex B.

## 4140 Gulf of America Offshore Technical Information for Area Contingency Planning

The Bureau of Safety and Environmental Enforcement (BSEE) led an offshore Gulf of America WCD project. During this multi-year project (2019-2023), a series of technical documents were developed (please see below).

- Offshore Oil and Gas Infrastructure (GOM Technical Document #1)
- Worst Case Discharge Scenario Modeling Overview and ACP-Specific WCD Scenario Appendices (2A-2F) (GOM Technical Document #2)
- Offshore Response Concept of Operations (CONOPS) (GOM Technical Document #3)

- Offshore Response Strategies and Best Management Practices (BMPs) (GOM Technical Document #4)
- Species Profiles and Best Management Practices (BMPs) (GOM Technical Document #5)
- Offshore Environmental Sensitivity Index Atlas (GOM Technical Document #6)

These documents were developed specifically for incorporation by reference into the coastal zone ACPs and are hosted on the BSEE Oil Spill Preparedness Division's (OSPD) website. In addition to the above technical documents, an inventory of offshore spill response equipment and a set of offshore Environmental Sensitivity Indices (ESI) maps will be created and embedded in NOAA's Environmental Response Management Application (ERMA). Collectively, these materials provide a foundation of risk assessment, resources at risk, and conceptual response information to inform coastal zone ACP planning and responses to a significant offshore facility oil spill incident.

# 4200 Pre-Spill Endangered Species Act (ESA) Consultations

In the event of an oil spill or hazardous substance release, the ESA must be considered in the development of Federal response activities and actions during an oil spill response. Within the coastal zone, the USCG is the Action Agency, and as such, it is the USCG FOSC's responsibility to address any ESA Section 7 Consultation requirements by engaging the Services (USFWS and NMFS) on the potential effects for ***all*** potential response actions that may be implemented during the emergency response.

- Endangered Species Act (ESA) and Essential Fish Habitat (EFH) for emergency consultations, pre-spill consultations and post-response procedures: guidance, technical assistance and planning.

## 4210 Preauthorization and Best Management Practices (BMPs)

Pre-spill consultations have been completed for the FK planning area for dispersant use and preauthorization for use of Surface Washing Agents (SWAs). Frequently used BMPs can be found on the ESA/EFH Form, Annex J of the RRT-4 RCP.

## 4220 Threatened and Endangered Species within FK Planning Area

A list of all threatened and endangered species and designated critical habitat for the FK planning area is available from the all-inclusive Listed Species Spreadsheet, Biological Assessments for Oil Spill Countermeasures. Annually, the RRT-4 will review this biological assessment to validate the information contained within.

# 4300 National Historic Preservation Act, Section 106

The National Historic Preservation Act, Section 106, among other requirements, requires that "Federal agencies take into account the effects of their undertakings on historic properties and to provide the Advisory Council on Historic Preservation (ACHP) with a reasonable opportunity to comment." Additionally, it requires that the Federal agency involved "consult on the Section 106 process with State Historic Preservation Offices (SHPO)" (36 CFR 800).

Within the coastal zone, the USCG is the Action Agency, and as such, it is the USCG FOSC's responsibility to address any NHPA Section 106 Consultation requirements by engaging the SHPO. Please see Annex M of this ACP for SHPO protocols in Florida.

## 4310 Preauthorization and Best Management Practices (BMPs)

It is recommended to engage early with any questions regarding response activities involving NHPA requirements. Additionally, for guidance on consultations with Tribal Historic Preservation Officers (THPOs), please see Annex C, Fish and Wildlife and Sensitive Environments Plan (FWSEP) of this ACP, and the Consultations Compendium, Annex H of the RRT-4 RCP.

# 4400 Priority Protection Areas

Area Committees (ACs) are directed by OPA and the NCP to identify environmentally, socio-economic, and otherwise sensitive areas within their defined ACP planning area. These areas are often referred to as ***priority protection areas***. ACs have broad latitude to develop specific criteria for identification. Response plans required by federal law or regulation associated with oil exploration, production, transport, or storage, e.g., Oil Spill Response Plans, Vessel Response Plans, and Facility Response Plans must ensure maximum protection of Area Committee identified priority protection areas.

# 4500 Areas of Special Economic or Environmental Importance

As required by 40 C.F.R. 300.210(c)(3)(i), areas of special economic or environmental importance shall be identified for protection from the impacts of a spill. Considerations include each location's significance, sensitivity to oil, anticipated impacts, and the extent to which potential losses can be recovered/ restored/ compensated. Potential economically sensitive areas include water intakes, high tourism coastal areas, significant port/industrial facilities, marinas, aquaculture sites, and fishing grounds.

## 4510 Economically and Environmentally Sensitive Areas

***Under development.***

# 4600 Geographic Response Strategies (GRSs)/Plans (GRPs)

Once priority protection areas are identified and adopted, ACs have the flexibility to provide information that may be useful to ensure appropriate strategies are implemented during any oil removal operation. One methodology is often referred to as Geographic Response Strategies (GRSs) or Geographic Response Plans (GRPs). Florida's existing GRSs/GRPs can be viewed at Geographic Response Strategy (GRS) Maps | FWC (myfwc.com)

Although GRSs/GRPs are developed and available for use during the planning and response phases, the IC/UC and OSROs must remain flexible and utilize on-scene initiative and their experience and competence in determining actual pollution mitigation "tactics" for a particular incident. GRSs/GRPs are developed using neutral weather conditions and mean-average tidal data and assume an incident response location. The scenarios for a pollution incident are nearly limitless; every spill is different and there are no absolutes. As a result, GRS/GRP locations should be reviewed and considered, but with the understanding that incident-specific mitigation tactics will likely be developed and executed on-scene. Factors such as current and projected winds, water currents/flows, tidal cycles, equipment limitations, bottom conditions, seasonal implications, exact incident location, potential hazards, and the type of oil can have a significant effect on any proposed strategy and should be carefully considered. **If applicable, modifications to any preplanned strategies should be expected**.

# 5000 Response

This Part of the ACP provides information outlined in the NCP, 40 C.F.R. 300.300 Subpart D. Response protocols are guidelines for the response community to ensure success in meeting all legal and statutory requirements before, during, and upon completion of an oil discharge or hazardous substance release incident. The NCP (40 C.F.R. 300.317) lists three broad national response priorities:

- Safety of human life
- Stabilizing the situation
- Use of all necessary containment and removal tactics in a coordinated manner

**Note:** These national priorities do not preclude the consideration of other priorities that may arise on an incident-specific basis. Although removal actions will primarily consist of mechanical means, e.g., boom, skimmers, etc., Subpart J of the NCP (Use of dispersants and other chemicals) provides

additional techniques for consideration to mitigate oil discharges. Please see Part 7000 of this ACP for information on specific techniques and processes preauthorized within this ACP planning area.

# 5100 Initial Reporting, Notifications, and Preliminary Assessment

When oil is spilled or a hazardous substance is released, the responsible party is required to notify the following:

National Response Center (NRC): (800) 424-8802
Florida State Warning Point: **(850) 815-4001 or (800) 320-0519**

The National Response Center (NRC) is the national communications center for handling activities related to response actions. The NRC acts as the single federal point of contact for all pollution incident reporting. Notice of an oil discharge or release of a hazardous substance in an amount equal to or greater than the harmful or reportable quantity must be made immediately in accordance with the CWA and CERCLA under 33 C.F.R. part 153, Subpart B, and 40 C.F.R. part 302, respectively. Notification shall be made to the NRC Duty Officer, HQ USCG, Washington, D.C. [telephone (800) 424-8802]. All notices of discharges or releases received at the NRC will be relayed immediately to the appropriate predesignated FOSC. Notifying individual state offices does not relieve the responsible party from the requirements to notify the NRC. Refer to the Initial Reporting Form, Annex P and the Contact Spreadsheet, Annex A.

## 5110 Preliminary Assessment

The FOSC shall, to the extent practicable, collect pertinent facts about the discharge or release, such as its source and cause; the identification of potentially responsible parties; the nature, amount, and location of discharged or released materials; the probable direction and time of travel of the discharged or released materials; the pathways to human and environmental exposure; the potential impact on human health, welfare, and safety and the environment; the potential impact on natural resources and property that may be affected; priorities for protecting human health and welfare and the environment; and appropriate cost documentation. These efforts shall be coordinated with other appropriate Federal, State, local, and tribal agencies. The FOSC also shall promptly notify the appropriate trustees for natural resources of discharges or releases that are injuring or may injure natural resources under their jurisdiction.

## 5120 Cleanup Assessment Protocol

When discharged oil contaminates shoreline habitats, responders survey the affected areas to determine the appropriate response. Although general approvals or decision tools for using shoreline cleanup methods can be developed during planning stages, responders' specific cleanup recommendations utilize field data on shoreline habitats, type and degree of shoreline contamination, and spill-specific physical processes. Cleanup endpoints should be established early so that appropriate cleanup methods can be selected to meet the cleanup objectives.

Annex AA, Shoreline Cleanup Methods, provides guidance on the applicability of various clean methods for typical shoreline habitats found in the Florida Keys. Additional tools to assist responders in establishing cleanup methodologies, include:

**Characteristics of Coastal Habitats: Choosing Spill Response Alternatives for oil spills,**
**Characteristics of Response Strategies: A Guide for Spill Response Planning in Marine Environments,**
**American Petroleum Institute (API) report on Tidal Inlet Protection Strategies (TIPS) (Note: File is too large to load on USCG network)**

**Note**: These can also be found in Annex F, Planning and Response Tools.

# 5200 Emergency Consultations

## 5210 Endangered Species Act (ESA), Section 7

Whenever an FOSC makes a determination that federal response actions ***may affect*** ESA-listed (threatened or endangered) species and/or designated Critical Habitat or ***may adversely affect*** Endangered Fish Habitat (EFH), the action agency (USCG within the coastal zone) shall initiate emergency consultation protocols as appropriate. The FOSC initiates this emergency consultation as soon as practicable, via email to the Services, after the response is initiated.

- Endangered Species Act (ESA) and Essential Fish Habitat (EFH) Form (for emergency consultations, pre-spill consultations and post-response procedures), guidance, technical assistance and planning.

## 5220 National Historic Preservation Act (NHPA), Section 106

Within the coastal zone, the USCG is the Action Agency, and as such, it is the USCG FOSC's responsibility to address any NHPA Section 106 Consultation requirements by engaging the SHPO. The FOSC initiates this emergency consultation as soon as practicable after the response is initiated.

- State Historic Preservation Office (SHPO) Notification, Coordination and Consultation (Federal/State of Florida Guidance), Annex M.

# 5300 General Hierarchy of Response Priorities

The National Contingency Plan establishes three priority levels for the dedication of emergency oil spill response resources:

- Protection of human health and safety,
- Protection of environmental resources, and
- Protection of economic resources.

Response protocols are also set in place to ensure the established priorities are met during an incident.

## 5310 Safety

As noted in the priorities outlined in the NCP, the health and safety of the responders and the general public are of primary importance. To ensure that this priority is successfully met each and every time, personnel involved in oil spill response activities must comply with all applicable worker health and safety laws and regulations. The primary federal safety regulations for responders are established by OSHA and can be found in 29 C.F.R. 1910.120; these set the safety standard for hazardous waste operations and emergency response (HAZWOPER). Incidents also may pose threats to those communities where the incident occurred, creating significant health safety threats which must be addressed as part of the response. For more details about the establishment of safety protocols for responders and how to safeguard public health during a response, please refer to the Site Safety Plan, Annex CC and the Environmental Health Support Plan, Annex DD.

## 5320 Priority Identification and Protection Strategies

Environmental resources at risk are identified in Part 4000 of this document, Environmentally and Economically Sensitive Areas, and in Annex C. Additional resources can be found in the following:

- The Sensitive Environmental and Economic Areas Annex, Annex G of the RRT-4 RCP.
- The Florida's Wildlife Contingency Plan for Oil Spill Response
- The Natural Resource Trustee Annex, Annex H of the RRT-4 RCP

## 5330 Risk Assessment for Sensitive Area Prioritization

The initial response is focused on minimizing impacts through the strategic objectives of:

- Stopping the Source,
- Containment,

- Cleanup,
- Recovery, and
- Protection of Sensitive Areas.

In a pollution event, sensitive area protection prioritization should be determined by three considerations: (1) which sites are at risk (how soon the oil product will get to each sensitive site); (2) the predefined hierarchy of protection priorities; and (3) the time and response resources available to implement a specified protection strategy. Responders should not assume that sensitive locales equidistant from the source of a spill are at equal risk from the oil.

For the purpose of prioritization, "risk" is defined as "the probability of discharged oil reaching the vicinity of a sensitive site of concern." This means that the urgency to protect key resources is first determined by the likelihood that it will be impacted in the near future and mobilization time for requisite response staff and equipment (can the sites at risk be protected by available resources before oil arrives?). If the sites are too numerous to protect with the response resources available within projected times of impact, then triage of protection follows as the prescribed general hierarchy as identified for a specific area in the Geographic Response Strategies/ Geographic Response Plans (GRSs/GRPs).

## 5340 Environmentally Sensitive Areas

During a response, all of the appropriate environmentally sensitive areas will be referenced, and a determination will be made as to which areas will be directly affected, which areas could potentially be affected, and which areas have no threat of being affected. The previously referenced GRSs/GRPs in Section 4600 can be used for guidance, taking into account any special response considerations that will need to be addressed. Additionally, when threatened and endangered species, designated critical habitats, or historical/cultural properties may be affected by response actions, consultations with the appropriate agencies must be initiated. Specific guidelines and requirements for environmentally and economically sensitive resources, to include wildlife rescue and recovery, can be found in Annex C FWSEP of this plan and within Annex G of the RRT-4 RCP.

## 5350 Wildlife Rescue & Recovery

The protection, rescue, and recovery of impacted wildlife during a response requires close coordination with those individuals and entities which have the expertise, authority, and equipment to safely and successfully execute it. This complex and high visibility operation is conducted by the Wildlife Branch within a Unified Command structure. The Wildlife Response Plan was developed to outline the policy and procedures for Wildlife Branch operations. Additionally, it lays out the activation criteria and factors to consider when developing wildlife response and recovery actions as well as the organizational infrastructure needed for these operations.

Additionally, for the SEFL planning area, the Florida Wildlife Contingency Plan for Oil Spill Response was developed by the USCG, FWC, USFWS, FDEP, and NOAA. This plan is part of the RRT-4 RCP and is also designed to function as a stand-alone document and contains a template to build a spill-specific Wildlife Response Plan.

## 5360 Aligning Natural Resource Damage Assessment (NRDA) with Response

Under OPA and CERCLA and various state statutes, Responsible Parties (RPs) are liable for damages for injury to, destruction of, loss of, or loss of use of, natural resources from a hazardous substance release or oil discharge as well as damages from the response to the release or discharge (or substantial threat of discharge/release). The measure of damages includes the cost to restore, rehabilitate, replace, or acquire the equivalent of the injured natural resource; the decline in value of resources pending restoration; and the reasonable cost of assessing the damages. Designated federal, state, and tribal

natural resource trustees (Natural Resource Trustees) are responsible for assessing damages through the Natural Resource Damage Assessment (NRDA) process.

As described by the U.S. Coast Guard Incident Management Handbook (2014) (IMH), NRDA activities generally do not occur within the structure, processes, and control of the Incident Command System (ICS). However, given that NRDA activities usually overlap with those of the response, a plan for coordination and cooperation between the two efforts is necessary. For details about the necessary communication and coordination methods to be implemented when NRDA and response activities are simultaneously taking place during a spill incident, please refer to the Coordinating Natural Resource Damage Assessment (NRDA) with Response, Site Profile - RRT IV Plans, Policies and Guidance - NRT of the RRT-4 RCP.

# 5400 National Incident Management System (NIMS)

The FKAC will manage spill incidents in accordance with the NIMS version of the Incident Command System (ICS). The Coast Guard Incident Management Handbook (IMH) is designed to assist Coast Guard personnel in the use of the NIMS ICS during response operations and planned events. This handbook outlines specific details related to NIMS ICS, including position job aids, forms, and other information to guide responders during an event. Brief discussion of a few NIMS ICS concepts are included below, and a link to the handbook may be found in Annex F, Planning and Response Tools.

## 5410 Unified Command (UC)

When appropriate, a UC shall be established consisting of, at a minimum, the FOSC, the SOSC, and the RP's Incident Commander (IC). The UC can be established "virtually" as deemed necessary. The UC structure allows for a coordinated response effort, which takes into account the federal, state, local, and RP concerns and interests when implementing the response strategy. A UC establishes a forum for open, frank discussions on problems that must be addressed by the parties with primary responsibility for response operations. **Note:** NIMS ICS also provides for local and/or tribal representation within the UC. As such and at a minimum, consideration should be given to expand the UC to accommodate local and/or tribal interest during a particular response.

## 5420 FOSC Decision Authority

The FOSC has the ultimate authority in a response operation and will only exert this authority, consistent with the NCP, if the other members of the unified command are not present or are unable to reach consensus quickly.

## 5430 Responsible Party

Each responsible party for a vessel or a facility from which oil is discharged, or which poses a substantial threat of a discharge, into or upon the navigable waters, adjoining shorelines, or the Exclusive Economic Zone of the United States, is liable for the removal costs and damages specified in OPA. Any removal activity undertaken by a responsible party must be consistent with the provisions of the NCP, the Regional Contingency Plan (RCP), this ACP, and the applicable vessel or facility response plan required by OPA. If directed by the UC at any time during removal activities, the responsible party must act accordingly. Specific responsibilities and requirements for the responsible party during a pollution incident can be found in the NCP, 33 C.F.R. 154 Subpart F, and 33 C.F.R. 155 Subpart D.

## 5440 Common Operating Picture (COP)

The COP provides visual up-to-date response information so the UC can make informed decisions on the effectiveness of response strategies and future operations. The Coast Guard has adopted NOAA's Environmental Response Management Application (ERMA) as the platform to display a COP during a response. ERMA is a viewer that pulls real-time and static data to display a single interactive map.

Generally speaking, RPs will provide their own COP, but ERMA can be used in conjunction with other platforms to make it easy for users to visualize an active environmental situation or long-term incident assessment. **Note**: Internet Explorer is not compatible with ERMA; please use Google Chrome or Microsoft Edge.

### 5450 Incident Command Post

When a UC is established – beyond a "virtual UC" -- to manage a multi-day response, an Incident Command Post (ICP) shall be established as near as practicable to the spill site. All responders (federal, state, tribal, local, and private) should be incorporated into the response organization at the appropriate level. A list of potential pre-identified ICPs can be found in the Contact Spreadsheet, Annex A.

### 5460 Public Information

Considering the high level of environmental awareness in many communities, any pollution incident is likely to generate interest from the public and the media. The public's perception of a response's success or failure is often determined early on in the response; this makes the need to provide the public with timely, accurate information critical. For smaller responses these efforts can be managed by a Public Information Officer or appropriate Branch Chief; however, large, more complex events will require the establishment of a Joint Information Center (JIC) to manage information access and flow. For more information, please refer to the National Response Team's (NRT) Joint Information Center Model.

## 5500 Oil Spill Containment, Recovery and Cleanup

The goal of most oil containment and recovery strategies is to collect the spilled oil from the water and prevent it from reaching sensitive resources. Unfortunately, this is not always possible and sensitive resources do get oiled in spite of response efforts, especially during large oil spills. In those cases, the goal will be to minimize environmental impact using a variety of booming, containment, and recovery techniques.

### 5510 Containment

Before discharged oil can be effectively recovered, the spreading of the oil must be controlled, and the oil contained in an area accessible to oil recovery devices. Generally, discharged oil is contained using oil containment boom. Typical boom has a floatation section that provides a barrier on and above the water surface and a skirt section that provides a barrier below the surface. The physical dimensions of the boom to be used for a particular spill will be dependent on local conditions. In the open water, it may be necessary to use a boom that is several feet tall. In a protected marsh, a boom that is only a few inches tall may be appropriate.

There are limitations on the effectiveness of any boom. Oil will be lost if the conditions create are such that there is splash-over from breaking waves. Oil will also be carried under the boom skirt (entrainment) if it is deployed in such a way that currents cause the oil to impact the boom with a velocity perpendicular to the boom of greater than 0.7 knots. Once a boom has been deployed, it may be necessary to reposition it due to changing tides and currents. It is desirable to have personnel available to readjust the boom as required. In all cases of boom deployment, consideration must be given to protecting the safety of those involved in the activity.

Various booming strategies are used to prevent spreading and to concentrate the oil so it can be skimmed or vacuumed. Factors that need to be considered are type and size of boom required for weather, winds, tides, and currents in the vicinity of potential spill areas; the type of deployment vessel needed; the amount of boom needed for effective containment; and available skimming capabilities. Fixed or natural anchor points should be selected.

Sorbent booming is useful when the amount of oil is minimal, when tides and currents are light, or when shorelines require protection. Heavier oil can be recovered using adsorbent snare (oil "sticks" to the boom) and lighter fuels generally are recovered using absorbents (sausage, sweep, or pads). Sorbent booming can also be used as a backup for other types of booming to recover product that may have entrained past the primary barrier.

As oil escapes containment, it becomes increasingly difficult to recover. Additional measures must be included to deal with escaping oil. This is particularly necessary where oil booming is subjected to winds, waves, and strong currents; oil entrains or is splashed over boom. To counter oil escapement, deployments should include preplanning to anticipate where it may happen and measures to prevent it.

## 5520 Shoreline Protection Options

All nearshore and shoreline strategies, plans, and tactics must carefully consider the impact of any protection efforts on the environment. The entire Florida Keys are located within environmentally sensitive and regulated areas, including the Florida Keys National Marine Sanctuary, Dry Tortugas/Everglades/Biscayne National Parks, Key West/Great White Heron/Key Deer National Wildlife Refuges, and numerous state parks.

The tidal inlets are a priority for protection due to their access to shallow and highly sensitive areas. Although some of the tidal inlets may require booming strategies across a very large area, their protection may mitigate the adverse effects of oil across a much larger geographic area bayside of the keys. But as learned from the Deepwater Horizon incident, protection efforts in shallow waters and tidal flats may actually do more harm to the environment than the actual pollution. The benefits of deploying any strategy must be carefully weighed against the adverse effect on the environment caused by conducting these operations.

There are three primary tools used to determine the shoreline protection strategies: Environmentally Sensitive Indices (ESI), Geographic Response Plans (GRP), and Tidal Inlet Protection Strategies (TIPS).

- The ESI's provide some of the most comprehensive data for shoreline habitats, sensitive biological resources, and human-use resources. The GRP's are a compilation of protection strategies for geographical grids that mirror those identified in the ESI's.
- The GRP's provide sensitive site and resource identification and prioritization and provide tactical strategies for protecting them. Compared to the TIPS, GRP's address and depict a larger geographic area, primarily shoreline that extends beyond the tidal inlets.
- The TIPS are a compilation of protection strategies that specifically address tidal inlets. These strategies are based largely on flood-tidal conditions and work to protect the inlets and sensitive areas accessed through them. These proposed protection strategies are based on our best professional judgment of what would work under average wave and tide conditions. The current TIPS address protection strategies for 27 key tidal inlets across the Florida Keys. These TIPS include a summary sheet with brief descriptions of resources at risk and protection strategies, collection site information, including GPS location, currents, shoreline type, and access, and maps detailing the protection strategies using vertical imagery.

During the response, work assignments (ICS-204) should be developed with the data sheets contained in the GRP's and TIPS, adjusted to real-time operational and environmental conditions/restraints. All these resources and shoreline protection strategies, including Tidal Inlet Protection Strategies (TIPS) and Geographic Response Plans (GRP), are contained in Annex AA.

## 5530 On-Water Recovery

### 5531 Open Water

Oil removal and recovery in open water is accomplished through the use of skimming devices once the oil has been contained. Skimmers can be freestanding, in which the skimmer is a separate piece of equipment which pumps the oil-water mixture from the contained surface into tanks on a vessel. These skimmers are usually driven by hydraulic units on board a vessel. Self-propelled skimmers have a skimmer as an integral part of the vessel. The skimming vessel positions itself at the head of a concentrated or contained pool of oil and recovers the oil into tanks on board the vessel. There is also a type of skimmer in which the weir or collection zone of the skimmer is an integral part of the boom which is close to the skimmer.

Vessels of Opportunity (VOO), such as fishing vessels, may be used to deploy or tow boom and, depending on the size of the vessel, may be equipped with skimming equipment. VOOs need to have adequate deck space and lifting cranes to carry the necessary equipment.

### 5532 Near-shore/Shallow Water

Oil recovery techniques and equipment are different in near-shore/shallow water locations than in open water locations. Shallow draft vessels and smaller boom and skimmers are used in these situations. These vessels can maneuver into tight places behind and under wharfs or in sloughs and can actually skim next to shore in many near-shore locations.

Strategies for near-shore cleanup can differ depending on the depth of the water and the location. Near-shore operations, within a bay or inlet, will also require shallow draft vessels, workboats, and skimmers. However, the vessels may only be operable at high tide. At or near low tide, the operation may evolve into a shoreline cleanup operation. Any boom towing boats or skimmers must be able to withstand going aground without sustaining major damage.

### 5533 High Current Environments

In the FKACP planning area, it is not uncommon to encounter currents in excess of three knots per hour. With appropriate skimmer operations, it is possible to recover spilled oil in these high current areas. Standard skimming techniques must be modified somewhat to optimize oil recovery.

To be successful, most containment and skimming systems must encounter oil at speeds of less than one knot. Typically, skimmers are operated in conjunction with containment boom. If oil encounters the boom/skimming system with a perpendicular velocity greater than 0.7 knots, the oil will carry under the boom and be lost. Therefore, the most important consideration for skimming in high currents is to keep the speed of the skimming system below one knot relative to the water's surface.

As a basic example: A skimmer pointed upstream in a 5-knot current would actually be proceeding downstream or backwards at four knots to keep its velocity relative to the water's surface at one knot. Gauging a skimmer's velocity relative to the water's surface can be somewhat difficult. Often the most reliable method is for the skimmer operator to closely monitor the skimming system. They should look for signs of oil entrainment as well as ensuring the integrity of the containment system. As current speeds change, so must the speed of the skimmer. The skimmer monitoring can be aided by using an aerial asset (helicopter, plane, or drone) with an observer.

The observer can tell if oil is being lost by the skimmer as well as direct the skimmer to the best skimming location.

Boom is often deployed in front of the skimmer forming a 'V' thus directing oil into the skimmer. The practice increases the area being covered by the skimmer. Ideally this 'V' should be as wide as possible. In high currents, as the 'V' width is increased, the speed of the oil encountering the boom perpendicularly is increased.

Oil will spread more quickly in the direction of the current flow; skimmers should operate in an up and down stream orientation. The oil slick will be elongated in the direction of the currents. Skimmers will encounter the most oil as they proceed up and down stream within the slick. Operating back and forth across stream and across the slick will result in sub-optimal recovery efficiency.

## 5540 Non-floating Oil Recovery and Protection

Non-floating oil that is spilled and transported subsurface either remains suspended in the water column or is deposited on the seabed, usually after interaction with suspended sediments or sand. Different strategies for containing these oils can depend on the location of the oil.

The recovery of sunken oil has proven to be very difficult and expensive because the oil is usually widely dispersed. Several of the most widely used recovery methods are manual removal, pump and vacuum systems, nets and trawls, dredging, and onshore recovery. Additional information is available in the Unconventional Oil Response Plan, Annex L.

## 5550 Shore-side Recovery and Natural Collection Points

There are predictable locales where recovery efforts can be optimized at shorelines. There are two situations where oil collection should be vigorously attempted at the shoreline:

- Places where oil naturally collects at the shoreline because of winds and currents
- Diversion and capture of oil as it flows past or along the shoreline to locations with low environmental sensitivity

Oil is a substance that spreads primarily in two dimensions on the water's surface while water moves in three dimensions; oil will spread thin, but it will also accumulate at predictable locales; it will accumulate wherever water has downward currents: such as tide rips along mud flats, and at windward coves. Responders are encouraged to also consider barge staging areas in the vicinity of a response for collection/pocketing of oil.

## 5560 Shoreline Cleanup

While skimming and recovery operations are being conducted, concurrent cleanup efforts will need to be taken to address the impacts resulting from an oil spill's contact with shorelines, man-made infrastructure, areas of vegetation, vessels, etc. The appropriate cleanup technique required will vary greatly and primarily depend upon the type of oil spilled, the degree of contamination, the sensitivity of the area and its economic or ecological importance and the ability to conduct the cleanup without causing further damage or trauma.

Following an oil spill's impact to a shoreline, an FOSC will need to identify those areas requiring treatment, establish cleanup priorities, and monitor the effectiveness and impact as a cleanup progress. The information gathered during the surveys described in Sub-section 5120 and

decision-making tools provided in Annex AA can assist the FOSC in selecting the most appropriate cleanup method(s) based on the kind of oil spilled and the type of shoreline habitat impacted. While evaluating cleanup options, an FOSC may determine that the use of a burning agent chemical countermeasure in support of the In-Situ Burn (ISB) technique provides the greatest net environmental benefit. For more information on the policy, procedures and checklists for burning agent use in support of the ISB technique within the Region 4 coastal zone (out to 3 miles offshore) please refer to the RRT-4 In-Situ Burn Policy, Annex J of the RRT-4 RCP.

For hard surface man-made areas impacted by a spill (sea walls, pier faces, rip rap, vessel hulls, etc.), evaluation of the options for removing the oil require the same care and consideration as naturally occurring areas of the environment. The challenges posed by the cleanup of these areas can be compounded by economic pressures as well as environmental, making the issue of a timely cleanup all the more urgent. In addition to having some of the same techniques available for the cleanup of a shoreline (manual removal, low/high pressure washing, passive use of sorbents, etc.), an FOSC may determine that use of a Surface Washing Agent (SWA) chemical countermeasure may be appropriate. For more information on the policy, procedures and checklists for SWA use within the Region 4 coastal zone please refer to the RRT-4 Surface Washing Agent (SWAs) policy, Annex J of the RRT-4 RCP.

## 5570 Decontamination

Decontamination is the process of removing or neutralizing contaminants that have accumulated on personnel and equipment during an oil spill response. Effective decontamination procedures protect responders from having unnecessary contact with oil that contaminates and permeates the protective clothing, respiratory equipment, tools, vehicles, and other equipment used during the response. It also protects people and the environment by minimizing the transfer of oil into clean areas of the response site and prevents the uncontrolled transportation of contaminants from the site into a community.

A Decontamination Plan should be developed (as part of the Site Safety Plan) and set up before any personnel or equipment may enter areas where the oil recovery or cleanup is taking place. The decontamination plan should at a minimum:

- Determine the number and layout of decontamination stations;
- Determine the decontamination equipment needed;
- Determine appropriate decontamination methods;
- Establish procedures to prevent contamination of clean areas;
- Establish methods and procedures to minimize responder contact with oil during the removal of personal protective clothing and equipment (PPE), and;
- Establish methods for disposing of clothing and equipment that are not completely decontaminated.

For more information about recommended decontamination procedures and practices please refer to the Occupational Safety and Health Administration (OSHA) Decontamination Site.

## 5580 Disposal

During the course of any response involving the collection and removal of oil, it becomes necessary to address the proper disposal of those materials which were contaminated by oil. The

Resource Conservation and Recovery Act (RCRA), also known as the Solid Waste Disposal Act, addresses this issue. RCRA directs that the generation of hazardous waste is to be reduced or eliminated as expeditiously as possible and that when it is generated, it be treated, stored, or disposed of to minimize the threat to human health and to the environment. In order to ensure the proper disposal of materials contaminated by hydrocarbons in accordance with all regulations (local, state, federal), please refer to the Disposal Plan, Annex GG.

### 5590 Terminating Cleanup Operations

When to terminate specific oil spill cleanup actions can be a difficult decision; when is clean, clean enough? The increasing cost of the cleanup and the damage to the environment caused by cleanup activities must be weighed against the ecological and economic effects of leaving the remaining oil in place. The decision to terminate cleanup operations is site-specific. Cleanup usually cannot be terminated while one of the following conditions exist:

- Recoverable quantities of oil remain on water or shores
- Contamination of shore by fresh oil continues
- Oil remaining on shore is mobile and may be refloated to contaminate adjacent areas and near shore waters

Cleanup may normally be terminated when the following conditions exist:

- The environmental damage caused by the cleanup effort is greater than the damage caused by leaving the remaining oil or residue in place
- The cost of cleanup operations significantly outweighs the environmental or economic benefits of continued cleanup
- The FOSC, after consultation with the members of the Unified Command, determines that the cleanup should be terminated

**Note:** Per 40 C.F.R. 300.320(a)(5)(b), removal shall be considered complete when so determined by the FOSC in consultation with the Governor(s) of the affected state(s).

## 5600 Response Funding and Cost Recovery

The Oil Spill Liability Trust Fund (OSLTF) is available to the FOSC for the payment of removal costs determined by the FOSC to be consistent with the National Contingency Plan as a result of, and damages resulting from, a discharge, or substantial threat of a discharge of oil impacting the navigable waters of the United States. The OSLTF was established by Section 311(k) of the Federal Water Pollution Control Act (FWPCA) and is administered by the U.S. Coast Guard's National Pollution Funds Center (NPFC). In the event of an oil spill, an FOSC, state, claimant, or trustee can obtain access to these federal funds through the processes outlined in the following sections.

### 5610 Hazardous Substance Pollution Response Funding

An MOU between the USCG and Environmental Protection Agency (EPA) authorizes the USCG to access the Hazardous Substance Trust Fund (Superfund) when it undertakes response activities pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). A USCG FOSC has the authority to approve the expenditure of these funds to prevent or mitigate immediate and significant harm to human life or health or to the environment from the release or potential release of hazardous substances. The process through which a USCG FOSC accesses these funds is outlined below (FOSC Access to the Federal Funds). The NPFC is

responsible for the administration of the USCG's portion of the Superfund, while the EPA retains overall responsibility for the fund's general administration.

## 5620 FOSC Access to Federal Funds

When federal actions are authorized by the Clean Water Act or CERCLA, the OSLTF or the Superfund, respectively, may be accessed to fund them. A USCG FOSC uses the NPFC's Ceiling and Number Assignment Processing System (CANAPS) to establish and manage a Federal Project Number (FPN) for an oil spill or a CERCLA Project Number (CPN) for a Hazardous Substance incident. CANAPS interfaces with the Coast Guard's Financial Management and Procurement Services (FSMS) to create an accounting line to provide funding support to the FOSC. For specific guidance regarding the administration of a FPN or a CPN, refer to the "Procedures for Accessing the Funds" as well as the "CANAPS User Guide" in the NPFC User Reference Guide.

## 5630 Funding Authorizations for Other Agencies

Federal, state, local, and tribal governments assisting the FOSC during a response may receive reimbursable funding through a Pollution Removal Funding Authorization (PRFA). The NPFC can be consulted regarding PRFAs, but authorization to establish and use this funding source is provided by the FOSC. The decision to use another agency to help in the response must be documented in writing (to include what is required and why it is needed) and must be signed by the FOSC. After the PRFA has been approved by the FOSC, the other agency is required to follow the same cost documentation procedures used by the FOSC. If additional or an increase in funding is required, the request must be made to the FOSC. For more information about PRFAs please refer to NPFC User Reference Guide.

## 5640 State Access to the OSLTF for Immediate Removal or Prevention Costs

OPA allows state Governors to request payment of up to $250,000 from the OSLTF for removal costs required for the immediate removal of a discharge of oil, or prevention of a substantial threat of a discharge of oil. Requests are made directly to the FOSC who will determine eligibility. If a state anticipates the need to access the OSLTF, they must submit a request which shall include the person's name, title, address, telephone number, and the capacity in which they are employed. FOSCs will provide initial coordination of the request and subsequent coordination and oversight. For more information about a state's access to the OSLTF please refer to Technical Operating Procedures for State Access to the OSLTF.

## 5650 Trustee Access to the OSLTF

OPA provides access to the OSLTF by Trustees for the purpose of conducting a Natural Resource Damage Assessment (NRDA). Executive Order 12777 introduced the concept of a Federal Lead Administrative Trustee (FLAT) in an effort to provide a focal point for addressing natural resource issues associated with a specific incident. The NPFC will only accept requests for initiation of a NRDA from, and normally work directly with, the designated FLAT. For purposes of requests for initial funding for a NRDA, State and Tribal Trustees must work through a FLAT. When a request for a NRDA has been made, the NPFC Natural Resource Damage Claims Division will then assign a claims manager to coordinate the approval process. Together, the NPFC Natural Resource Damage Claims Manager and the FLAT will execute a request and authorization for obligation of funds through an Interagency Agreement (IAA). For more information about the process of initiating a Natural Resource Damage Assessment (NRDA) and for the regulations and procedures for making a Natural Resource Damage (NRD) claim please refer to NPFC Natural Resource Damage Claims.

## 5660 Local and Tribal Government Access to the Superfund

Local and federally recognized tribal governments may request reimbursement of cost to carry out temporary measures to protect human health and the environment without a contract or cooperative agreement. All costs for which local governments are seeking reimbursement must be consistent with the NCP and Federal cost principles outlined by the Office of Management and Budget. Reimbursements are limited to $25,000 per hazardous substance response. In addition, reimbursement must not supplement local government funds normally provided for emergency response. States are not eligible for reimbursement from the Superfund and no state may request reimbursement on behalf of political subdivisions within the state.

The EPA will make all decisions regarding recovery of expenditures from the Superfund. All agencies expending Superfund money must submit an itemized account of all funds expended in accordance with provisions of contracts, Interagency Agreements (IAA), or Cooperative Agreements with EPA. These agreements must be in place prior to the expenditure of funds. For more information on the Local Government Reimbursement (LGR) program please refer to EPA Local Government Reimbursement Program.

## 5670 Military Interdepartmental Purchase Request

When an FOSC makes the determination that a DoD asset or DoD resources are necessary to conduct a response (i.e., US Navy SUPSALV), a Military Interdepartmental Purchase Request (MIPR), vice a PRFA, must be established. For more information about establishing a MIPR please refer to NPFC Technical Operating Procedures - Chap 5 (MIPR).

## 5680 Documentation and Cost Recovery

Maintaining a thorough and complete record of response actions and expenditures is a critical element to any successful response. Keeping a thorough record aids in the recovery of costs and can be used to generate best management practices and lessons learned as well as support the restoration of natural resource injuries.

## 5681 National Contingency Plan (NCP) Documentation Requirements

The NCP outlines broad documentation and cost recovery requirements and can be found in 40 C.F.R. 300.315. During significant and protracted pollution responses, the FOSC is encouraged to mobilize one of the USCG's Type 1 Documentation Unit Leaders to oversee all facets of incident-related documentation. Type 1 Documentation Unit Leaders contact information is provided in Annex A.

## 5682 Cost Documentation Procedures

Costs generated against the fund during a response will be paid by the NPFC through the line of accounting established by the FPN or CPN. Upon completion of the response, the NPFC will seek to recover those costs from the RP. Only through careful documentation of those costs and expenditures is cost recovery possible; this makes maintaining a detailed cost documentation process a critical part of any response. For specific information on cost documentation requirements and cost recovery procedures, please refer to the NPFC Technical Operating Procedures for Incident and Cost Documentation.

## 5683 NPFC User Reference Guide

The NPFC User Reference Guide is designed to serve as a reference tool during an oil discharge or hazardous substance release when the Federal On-Scene Coordinator (FOSC) is providing

oversight or conducting response operations under the NCP. This guide includes all relevant Federal regulations, technical operating procedures (TOPs), forms and sample letters, and other documentation designed to make funding of recovery operations and the recovery of Federal expenditures as efficient and easy as possible. This guide is available to all interested parties and can be found at: NPFC User Reference Guide.

## 5690 Oil Spill Claims

## 5691 Claims to the OSLTF

Claimants (individuals, corporations, and government entities) can submit claims for uncompensated removal costs or certain damages caused by an oil spill (as listed below) to the OSLTF, administrated by the NPFC, if the Responsible Party for the discharge does not satisfy their claim. The NPFC adjudicates claims and pays those with merit.

The Responsible Party can submit claims to the NPFC provided that:

- The total of all response costs and damage claims exceeds the Responsible Party's statutory limit of liability; or
- The spill was solely caused by a third party, an Act of God, or an Act of War.

The categories of uncompensated losses covered by the OSLTF are:

- Removal costs,
- Real or personal property damages,
- Loss of profits or earning capacity,
- Loss of subsistence,
- Loss of government revenues,
- Cost of increases to public services, and
- Damages to natural resources.

Generally, claims for all costs and damages resulting from an oil pollution incident must be presented first to the Responsible Party or its guarantor. For more information about the claims process, please refer to the NPFC Claimant Guide.

## 5692 NOAA Damage Assessment Procedures

NOAA published a final rule to guide Trustees in assessing damages to natural resources from discharges of oil. The rule provides a blueprint that enables Natural Resource Trustees to focus on significant environmental injuries, to plan and implement efficient and effective restoration of the injured natural resources and services, and to encourage public and responsible party involvement in the restoration process.

Under the rule, the NRDA process is divided into three phases:

- Pre-assessment: The trustees evaluate injury and determine whether they have the authority to pursue restoration and if it is appropriate to do so;
- Restoration Planning: The trustees evaluate and quantify potential injuries and use that information to determine the appropriate type and scale of restoration actions; and
- Restoration Implementation: The trustees and/or responsible parties implement restoration, including monitoring and corrective actions.

This process is designed to rapidly restore injured natural resources and services to the condition that would have existed had the spill not occurred and to compensate the public for the losses experienced from the date of the spill until the affected natural resources and services have been recovered. For more information about this process please refer to NOAA NRDA Process.

# 5700 Hazardous Substance Response

## 5710 Introduction

This segment of the ACP provides general guidelines for initial response actions necessary to abate, contain, control and remove the released substance and describes some of the unique issues associated with a hazardous substance release. Hazardous substance response is outlined within Subpart E of the NCP. 40 C.F.R. Part 300 Subpart E establishes methods and criteria for determining the appropriate extent of response authorized by CERCLA and CWA Section 311(c). These include:

- When there is a release of a hazardous substance into the environment; or
- When there is a release into the environment of any pollutant or contaminate that may present an imminent and substantial danger to the public of the United States.

The release of hazardous substances is unique compared to an oil spill in that hazardous substances have a greater potential to impact human health. In general, oil spills are of great concern due to their potential to cause long-term damage to the environment. However, oil spills do not routinely pose an immediate threat to human life. On the contrary, hazardous substance releases can pose an immediate danger to humans when released in even the smallest quantities.

The definition of a Hazardous Substance is: Any substance designated as such by the administrator of the EPA pursuant to the CERCLA (42 U.S.C. Sec. 9601 et seq.), regulated pursuant to Section 311(c) of the federal CWA (33 U.S.C. Sec. 1321 et seq.), or designated by the Florida DEP

The definition of harmful quantity is: A quantity of a hazardous substance the release of which is determined to be harmful to the environment or public health or welfare or may reasonably be anticipated to present an imminent and substantial danger to the public health or welfare by the Administrator of the EPA pursuant to federal law, or designated by the Secretary of the Florida DEP.

More information on area specific Hazardous Substance response can be found in Annex D.

## 5720 Environmental Support to the FOSC

In the event of a Spill of National Significance or pollution incident which poses a threat to public health, local, state, and national health, public officials shall be notified. For more information about environmental support available to the FOSC, please refer to Annex DD.

## 5730 State Policy

## 5731 Florida

The Florida DEP is the lead agency in concerned with environmental policies and regulations as set forth in Florida Statute, Title XXVII, Chapter 376.051, the Powers and duties of the DEP. The department responds to all reported unauthorized discharges, emissions, or other releases to the

water, air, and soil necessary for the general welfare and the public health and safety of the state and its inhabitants.

DEP serves as the SOSC for incidents involving all pollutants and hazardous substance releases except for radioactive materials. In addition to spill response duties, DEP personnel review industry spill prevention plans, and inspects permitted facilities for compliance with applicable rules and regulations pursuant to the Florida Pollutant Discharge and Removal Act. Florida Statute Section 403.077, requires companies and organizations to complete a public notification of pollution for any "reportable pollution release that impacts air, land, or waters of the state. DEP requires a State Watch Office (SWO) incident number to complete a "Public Notice of Pollution" form pursuant to statute.

Report all spills to the 24-hour State Warning Point at the Florida Emergency Management Agency at (850) 815-4001, (800) 320-0519, or to the back-up cell number at (850) 591-0071. The SWO can also be reached via email at swp@em.myflorida.com.

The Florida Fish and Wildlife Conservation Commission (FWC) is a state trustee for fish, wildlife, and habitats that may be affected by pollutant spills. Per Florida Statute 379.224 and the memorandum of agreement relating to Fish and Wildlife Research Institute, FWC provides technical support and response for oil spills, ship groundings, major marine species die-offs, hazardous spills, and natural disasters. Per Florida Statute 376.121(8), the FWC shall assist the FDEP in the assessment of damages to wildlife impacted by pollutant discharges.

The State Watch Office is the state of Florida's emergency notification center. The State Watch Office can contact the appropriate FDEP office and other emergency responders in the event of an emergency.

The State Emergency Response Commission (SERC) is responsible for implementing the federal Emergency Planning and Community Right-To-Know Act (EPCRA) provisions in Florida. The SERC, along with the LEPCs, work to mitigate the effects of a release or spill of hazardous materials by collecting data on the storage of hazardous chemicals above planning quantities. The Technological Hazards Section at the Florida Division of Emergency Management provides programmatic support for the SERC.

Coordination with this group can be accomplished through the Florida Division of Emergency Management.

## 5800 Post-spill Consultations

For actions not covered by a pre-spill consultation that are used, or are considered for use during an emergency response, the FOSC must follow ESA and/or EFH emergency response procedures and complete ESA and/or EFH consultations in collaboration with the Services once the emergency phase of the response has ended. To the extent applicable, post-spill NHPA Section 106 consultations with the SHPO (and possibly others) would also need to be completed if not initiated or completed during the emergency phase.

Additionally, the following annexes are also applicable to Endangered Species Act (ESA), Essential Fish Habitat (EFH), and National Historic Preservation Act (NHPA) mandates:

- Natural Resource Trustees Annex, Annex H of the RRT-4 RCP.
- The all-inclusive FWSEP/WRP Contact Spreadsheet, Annex M of the RRT-4 RCP.
- All-inclusive Listed Species Chapter within the RRT-4 Biological Assessments for Oil Spill Countermeasures

# 6000 Response Resources

The Oil Pollution Act of 1990 (OPA) amended the Federal Water Pollution Control Act (FWPCA) to require the preparation and submission of response plans by the owners or operators of certain oil-handling facilities and for certain oil-carrying tank and non-tank vessels (referred to here as plan holders). These plan holders are required to submit response plans which identify and ensure either by contract or other approved means (i.e., Letter of Intent), the availability of response resources (i.e., personnel and equipment) necessary to remove a worst-case discharge (WCD), including a discharge resulting from fire or explosion, and to mitigate or prevent a substantial threat of such a discharge. Additional response resources for marine firefighting and salvage are identified in Annex E.

## 6100 Oil Spill Removal Organizations (OSROs) and Equipment

### 6110 OSRO Classification Program

The U.S. Coast Guard created the voluntary OSRO classification program so that plan holders could simply list OSROs in their response plans rather than providing an extensive, detailed list of response resources. If an OSRO is ***classified*** by the U.S. Coast Guard, it means their capacity has been determined to be equal to, or greater than, the response capability necessary to ensure plan holder compliance with the statutory requirements. A more in-depth discussion of the classification program can be found here: USCG OSRO Guidelines.

### 6120 Response Resource Inventory (RRI) database

As part of maintaining their classification, OSROs must provide detailed lists of their response resources to the Response Resource Inventory (RRI) database. The National Strike Force Coordination Center (NSFCC) administers this database, along with the OSRO classification program. The RRI database is the backbone of the classification program and its capabilities are two-fold: a classification element and an inventory function. The classification element of the RRI database complements the Facility Response Plan and Vessel Response Plan development and review processes by systematically classifying OSROs' response capabilities to meet the plan holders' response capability requirements. An OSRO's classification levels (Maximum Most Probable Discharge and Worst Case Discharge Tiers 1, 2 & 3) are based on its ability to meet time delivery requirements for containment boom, temporary storage capacity and skimmer capacity. Once entered into the system by the OSRO, the RRI database translates the information into an estimated daily recovery capacity (EDRC) that determines an OSRO's level of classification for each of the six various operating areas (Rivers/Canals, Great Lakes, Inland, Nearshore, Offshore, and Open Ocean) in a particular COTP zone.

The inventory function of the RRI database makes a great deal of information available to response and contingency planning personnel; it not only outlines the locations and amount of "core equipment" (boom, skimmers, temporary storage), but includes other important support equipment

including vessels, dispersant application platforms, aerial oil tracking capabilities and personnel. In order to access the inventory functions of the RRI database, administrator login privileges are required. These privileges are issued by the NSFCC and are limited to members of the U.S. Coast Guard and those OSRO members designated by their company to maintain the equipment inventory. To make a request for administrative login privileges, contact the NSFCC at: Contact NSFCC for RRI Administrative Access.

## 6130 Classified OSRO listings for the Sector Key West COTP Zone

The NSFCC maintains a portion of the RRI database that allows all interested parties (no administrative access required) open access to reports about a company's Mechanical, Dispersant, Marine Fighting and Salvage and Non-Floating Oil classifications. This site also provides a point of contact report (listed by name/company number) for all the OSROs in the United States. The mechanical classification reports can be viewed by company name, by USCG District, or by COTP zone and outline which operating environments the classification has been granted (Rivers/Canals, Nearshore, Open Ocean, Inland, etc.) and for which volume of discharge. To see which OSROs are classified within the Sector Key West COTP zone, please refer to: RRI Classification and POC Reports site.

## 6140 Basic Ordering Agreements (BOAs)

The U.S. Coast Guard's Commander, Operational Logistics Command (LOG), Contracting Office (LOG-9) Contingency and Emergency Support Branch (LOG-92) maintains a list of pre-established emergency response contracts known as BOAs. These contracts are established with OSROs around the country and are available for use at any time by a USCG Federal On-Scene Coordinator (FOSC). LOG-92 negotiates the terms and rates of these contracts ahead of time, enabling an OSRO to be quickly hired to provide pollution response services when the FOSC needs to conduct oil removal or hazardous substance response operations under the National Contingency Plan. While an FOSC always has the option to exercise a BOA contract, this does not preclude the hiring or contracting of a non-BOA pollution response service provider should the FOSC deem it necessary. LOG-92 contracting officers are available 24/7 to support the FOSC.

## 6150 Oil Spill Response Cooperatives and Consortiums

There are numerous industry-funded major oil spill response cooperatives and consortiums in the United States today. Unlike a classified OSRO which is hired by a single plan holder to ensure compliance with statutory requirements, these organizations are formed to provide pollution response services to companies from the oil and gas industry which elect to become members and pay for the coverage or service. Each consortium or cooperative makes the decision about the type and quantity of equipment they offer to their member clients. This equipment is often highly specialized and tailored to serve a specific sector of the oil and gas industry (exploration and production, or transportation, for example) and allow them to meet worst case discharge planning standards. Some examples of cooperatives and consortiums that operate in Southeast Florida include the following:

- Clean Gulf Associates
- HWCG LLC
- Marine Well Containment Company
- Oil Spill Response Limited
- Wild Well Control

# 6200 Hazardous Substance Response

### 6210 Hazardous Substance Response Resources and Technical Expertise

***Under development.***

## 6300 Salvage and Marine Firefighting Resources

### 6310 Salvage and Marine Firefighting Equipment and Technical Expertise

***Under development.***

# 7000 Response Technologies

## 7100 Response Technologies for Oil Spill Response

While mechanical recovery will typically be the most widely used response option, there are several other tools available to mitigate oil spills. The NCP directs that RRT and Area Committees address, as part of their planning activities, the desirability of using certain alternative response technologies when removing or controlling oil discharges. RRT-4 has developed several policy documents to address the approval and use of these chemical countermeasures. These policy documents can be found in Annex J: Oil Spill Countermeasure of the Region 4 RCP.

### 7110 Dispersants

Dispersants are chemical agents (similar to soaps and detergents) that help break up an oil slick into very small droplets, sending them from the surface down into the water column. These agents are typically sprayed onto discharged oil by specially outfitted boats or aircraft. While dispersants don't remove the spilled material, they do allow the smaller dispersed particles of oil to be more easily biodegraded by the water's naturally occurring microbes. The application of this chemical countermeasure can be a critical element in preventing significant oiling of sensitive habitats during an oil spill response. Before a dispersant can be used, it must first be listed on the NCP Product Schedule (see Sub-section 7140 of this document). Within RRT-4, the use of dispersants within the offshore environment has been preauthorized.

In some instances, oil discharges do not originate from sources on the surface, but rather from oil exploration, production, and/or transmission facilities located hundreds, and often thousands, of feet below them. These discharges can result from any number of casualties including loss of well control or loss of a pipeline's integrity. In cases such as these, dispersants can be injected directly into the flow at the oil discharge's source using the technique known as Subsea Dispersant Injection (SSDI). By reducing oil droplet size at the source, SSDI reduces the amount of oil reaching the sea surface. This in turn, lowers the potential for oil to impact wildlife on the surface or to impact environmentally sensitive areas on the shore.

**Note**: Preauthorization extends only to the aerial and surface spray application of dispersants; SSDI is not preauthorized.

For the most up-to-date policy, procedures, and checklists when conducting a surface dispersant application operation in the RRT-4 nearshore or offshore coastal zone, please refer to the RRT-4 RCP Annex J: Oil Spill Countermeasure, beginning on page 49, Use of Dispersants in RRT Region 4 which lists pre-approval, provisions, and protocol for use of dispersants in RRT-4.

### 7120 Burning Agents (In-Situ Burn)

The word "in-situ" is the Latin term for "in-place." An In-Situ Burn (ISB) refers to the initiation of a controlled burn of discharged oil as a means to mitigate the oil's harmful impacts. The fuels to feed an ISB are provided by the vapors from the spilled oil and, for those spills with impacts inshore or on land, any other organic materials with which the oil may have come into contact. Often the source of ignition is insufficient to light the oil and start the burn; in these instances, FOSCs may decide to use burning agents to help start the burn. Burning agents are defined by the NCP as "*…those additives that, through chemical or physical means, improve the combustibility of the materials to which they are applied."* Burning agents are not required to be included on the NCP Product Schedule.

In RRT-4, burning agent use has been preauthorized within the offshore environment; for the terms and conditions of this preauthorization, please refer to the RRT-4 RCP, Annex J: Oil Spill Countermeasure, beginning on page 262, Preauthorization of In-Situ Burning. Burning agent use is not preauthorized within the inshore/nearshore environment in RRT-4.

**Note:** Florida state waters extend seaward into the Gulf of America to a distance of nine miles whereas all other state coastal waters in RRT-4, including Florida's east coast, extend seaward to a distance of three miles. Since Florida state law prohibits preauthorization of in-situ burning within state waters, an emergency order has been drafted by the state which will allow for rapid case-by-case approval of in-situ burning in state waters when necessary and judged to be appropriate by a designated state official. The emergency order documents can be found beginning on page 282 of Annex J: Oil Spill Countermeasure of the RRT-4 RCP. In the event of the necessity of rapid approval, the Director, Division of Law Enforcement of the Florida DEP is the designated state official. No case-by-case approval will be required or considered necessary from EPA, DOI, or DOC for waters extending seaward in excess of three miles on Florida's west coast unless otherwise designated as meeting the criteria for a case-by-case zone.

For the most up-to-date policy, procedures and checklists when conducting an in-situ burn operation in the RRT-4 coastal zone please refer to, Annex J: Oil Spill Countermeasures, beginning on page 255, Use of In-Situ Burning in RRT Region 4.

## 7130 Surface Washing Agents (SWAs)

SWAs are chemicals that are used to enhance oil removal from hard surfaces. They generally contain a mixture of a non-polar solvent and a surfactant. The solvent dissolves into the highly viscous or weathered oil to create a less viscous and somewhat uniform liquid oil or oily mixture. The surfactant reduces the interfacial tension between the liquid oil and the surface the oil has adhered to. Depending on environmental conditions and the combination of solvents and surfactants, the removed oil will either float or disperse. The latter may have a negative environmental impact, making SWAs with the "***lift and float***" characteristics generally preferable.

Before a Shoreline Cleaner can be used, it must first be listed on the NCP Product Schedule (see section 7140 of this document). For the most up-to-date policy, procedures and checklists when planning use of Shoreline Cleaners in the RRT-4 coastal zone, please refer to Annex J: Oil Spill Countermeasure of the RRT-4 RCP, beginning on page 376, Use of Shoreline Cleaners.

## 7131 Solidifiers

Solidifiers are considered an alternative to sorbents or mechanical recovery to recover small amounts of oil or thin sheens from the water surface. They also have been shown to be useful by creating solid barriers that can limit spreading, thereby enhancing containment, collection, and recovery. Solidification of oil is an oil spill countermeasure that was evaluated by the RRT-4 as a candidate for developing preauthorization for use.

Due to the potential for solidifiers to: 1) add to the increased effectiveness of response in certain situations; 2) the fact that currently listed solidifiers are not a significant concern from a toxicological point of view; and 3) they don't sink once reacted with oil, the RRT-4 agreed that preauthorization for use of solidifiers under certain conditions was desirable.

Preauthorization is necessary because the product must be on hand at the spill site and applied immediately to be effective for most spills. The RRT-4 preauthorization agreement is for the use of solidifiers in all applications. However, the use of solidifiers contained in booms, socks, pillows or other similar manner may be considered for use in the same manner as sorbents provided all materials are fully recovered and disposed of properly.

Before a Solidifier can be used, it must first be listed on the NCP Product Schedule (see section 7140 of this document). For the most up-to-date policy, procedures and checklists when using Solidifiers in the RRT-4 coastal zone please refer to Annex J: Oil Spill Countermeasure of the RRT-4 RCP, beginning on page 376, Use of Solidifiers.

### 7140 NCP Product Schedule

Subpart J of the NCP directs the EPA to prepare a schedule of spill mitigating devices and substances that may be used to remove or control oil discharges; this is known as the NCP Product Schedule. The NCP Product Schedule lists the following types of products authorized for use on oil discharges: Dispersants, Surface Washing Agents, Bioremediation Agents, Solidifiers, and Herding Agents.

**Note**: Before any chemical countermeasure may be used, the FOSC must first seek RRT-4 approval through the consultation and concurrence process or have its use preauthorized. The only exception to this is when the FOSC uses the provision listed in 40 C.F.R. § 300.910(d).

Per 40 C.F.R § 300.965, the listing of a product on the NCP Product Schedule does not constitute approval or recommendation of the product. The listing means only that data have been submitted to EPA as required by Subpart J of the NCP. For the most current listing of approved substances for use, please refer to the NCP Product Schedule.

## 7200 Monitoring and Evaluation of Alternative Response Technologies

### 7210 Special Monitoring of Applied Response Technologies (SMART)

The Special Monitoring of Applied Response Technologies (SMART) protocols are a set of cooperatively designed monitoring standards utilized when conducting In-Situ Burn or Dispersant operations. SMART establishes a monitoring system for the rapid collection and reporting of real-time, scientifically-based information, in order to assist the Unified Command (UC) with decision-

making during In-Situ Burn or Dispersant operations. SMART recommends monitoring methods, equipment, personnel training, and command and control procedures that strike a balance between the operational demand for rapid response and the UC's need for feedback from the field.

## 7220 Dispersant Monitoring

When making a dispersant application, the UC needs to know whether the operation is effectively dispersing the oil or not. The SMART dispersant protocols are designed to provide the UC with real-time feedback on the efficacy of the dispersant application and consist of three different levels (or tiers) of monitoring. It should be noted that the SMART dispersant protocols may be useful for evaluating the dilution and transport of the dispersed oil, but they do not monitor the fate, effects, or impacts of the dispersed oil.

The three tiers of monitoring are Tier I, Tier II and Tier III:

**Tier I** consists of visual observation by an observer to provide a general, qualitative assessment of a dispersant's effectiveness. Visual monitoring may also be enhanced by advanced sensing instruments such as infrared thermal imaging or other like devices. However, sometimes a dispersant's effectiveness is difficult to determine by visual observations alone.

**Tier II** protocols employ a monitoring team to confirm the visual observations by taking water samples and running them through a fluorometric instrument while on-scene.

**Tier III** follows Tier II procedures, but also collects information on the transport and dispersion of the oil in the water column. This level of monitoring can help to verify that the dispersed oil is diluting toward background levels. Tier III is simply an expanded monitoring role and may include monitoring at multiple depths, the use of a portable water laboratory, and/or additional water sampling. It also can be moved to a sensitive resource (such as near a coral reef system) as either a protection strategy or to monitor for evidence of exposure.

## 7230 In-Situ Burn (ISB) Monitoring

Air monitoring is an important component of any ISB operation. These measurements allow the FOSC to continuously evaluate air quality data, ensuring that human health and safety are safeguarded in real-time. Typical by-products from an in-situ burn include carbon dioxide, water vapor, soot (particulate matter), and other gaseous compounds. Of these, the soot, being comprised of very fine, carbon-based materials, is responsible for a smoke plume's dark/black appearance and pose the greatest inhalation hazard.

The SMART protocols for air monitoring are used when there is a concern that the public or response personnel may be exposed to the hazardous components of the burning oil's smoke. These monitoring operations are conducted by one or more teams, depending upon the size of the operation. Each monitoring team uses a real-time particulate monitor capable of detecting the small particulates emitted by the ISB (ten microns in diameter or smaller), a global positioning system, and other equipment required for collecting and documenting the data. Each monitoring instrument provides an instantaneous particulate concentration as well as the time-weighted average over the duration of the data collection. The readings are displayed on the instrument's screen and stored in its data logger. In addition, the SMART protocols direct that particulate concentrations be logged manually every few minutes by the monitoring team in a recorder data log.

Monitoring teams are deployed at designated areas of concern to determine ambient concentrations of particulates before the burn starts. During the burn, if the team's instruments detect high particulate concentrations or if the time weighted averages approach exceed pre-established levels, the information is passed to technical specialists within the UC for further review and possible action (i.e., personnel evacuation, termination of burn, etc.). To review the complete set of SMART protocols for ISB and Dispersant operations, please refer to Special Monitoring of Alternative Response Technologies (SMART).

## 7240 Alternative Response Tool Evaluation System (ARTES)

While actively mitigating the effects of an oil discharge or, when engaging in the preparedness effort to do so, the FOSC has any number of mechanical or chemical countermeasures' use to consider. These responses or planning efforts can often generate interest within a local community, region, or even the nation. As this interest grows, members of the general public, companies or sectors of industry can feel compelled to approach the FOSC to offer their non-conventional service or idea to help the response or preparedness effort. In these instances, the FOSC may be requested to consider using a non-conventional alternative countermeasure (a method, device, or product that hasn't been or isn't typically used for spill response). To assess whether a proposed countermeasure could be a useful response tool, it's necessary to collect and quickly evaluate information about it.

To assist an FOSC in evaluating the efficacy of a non-conventional alternative countermeasure, a process known as the Alternative Response Tool Evaluation System (ARTES) was developed. The ARTES is designed to evaluate potential response tools on their technical merits against established, consistent criteria either during an actual incident or during pre-spill planning. Using a series of forms which examine a proposed response tool and document its properties, a designated team can rapidly evaluate it and provide feedback to the FOSC with a documented recommendation regarding its use.

Under the ARTES framework, when it has been determined that it would be appropriate for a product to be evaluated, a vendor or supplier will complete and submit the Proposal Worksheet (PWS); this form is designed to capture data about the product and once filled in, is provided to a review team for analysis and evaluation.

Once the vendor has filled out and submitted the PWS, it will then be reviewed by either one of two review teams depending upon whether the request for evaluation was being made during an actual spill response, or during a period of pre-spill planning. The Response Tool Subcommittee (RTS) will conduct the review during a pre-spill planning effort, and the Alternative Response Tool Team (ARTT) does so during an actual incident. To document their review and evaluation of the product and the PWS, the review team will complete a Data Evaluation Worksheet (DEW).

Once the evaluation has been completed and documented on the DEW, the review team then will formulate their recommendation and document it on the Summary Evaluation Worksheet (SEW). The SEW captures the team's recommendation of whether or not the proposed response tool should be used, and is provided to the FOSC as well as to the initiator of the evaluation request (vendor).

It should be noted that that the FOSC need not wait for the ARTES recommendation when deciding whether or not to use a response tool. The ARTES is designed to help assist in the decision-making process but does not limit or prevent an FOSC from using a product they deem necessary. **Note:** Completion of the ARTES evaluation does not mean that a product is pre-approved, recommended, licensed, certified, or authorized for use during an incident.

## 7300 Response Technologies for Hazardous Substance Response

***Under development.***

# Florida Keys
# Area Contingency Plan
# (FKACP)

## Contact Spreadsheet

# Annex A

May 2022

## Record of Changes

| Change Number | Change Description | Section Number | Change Date | Name |
|---|---|---|---|---|
| 1 | | | | |
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## Table of Contents

# 1000 Contact Spreadsheet Introduction

The Contact Spreadsheet serves as a comprehensive collection of contact information for those federal, state, and local agencies, as well as tribal authorities, which may have jurisdiction or regulatory authority over a pollution event or that which can provide support/expertise to a response effort. In addition, contact information for Non-Government Organizations, firefighting experts, salvage equipment providers, oil pollution response cooperatives, oil pollution response equipment providers, and members of academia who focus on issues relevant to pollution response have been included.

## 1100 Purpose

This list is not intended to be complete and will require routine maintenance and refreshing as personnel in certain positions transfer and as companies, agencies and organizations change.

The following is the link to Annex 2: Contact Spreadsheet.

# Planning and Response Tools

| No. | Source | Topic | Hyperlinks | Description<br>Note: After sorting, select all (triangle at left top of screen) Home Tab>Cells>Format "AutoFit Row Height". |
|---|---|---|---|---|
| 1 | FL FWC FWRI | Sector ACP | Link | The Florida Keys Area Contingency Plan (FKACP) describes the strategy for a coordinated federal, state, tribal, and local response to a discharge or substantial threat of discharge of oil, or a release or substantial threat of release of hazardous substance(s) within the boundaries of the Florida Keys coastal zone. |
| 2 | FL FWC FWRI | Annex AA - Risk Analysis Shoreline Cleanup Methods | Link | The best cleanup method for a particular shoreline segment will be determined during the shoreline assessment process. Teams will usually visit each contaminated shoreline segment and inventory the geological and ecological resources in order to select the most appropriate cleanup method(s). This annex provides shoreline cleanup matrices for use in the selection process of a particular cleanup method(s). |
| 3 | FL FWC FWRI | Annex B - Risk Analysis Area Planning Scenarios | Link | This annex has been developed by the Federal On-Scene Coordinator (FOSC), in consultation with the Florida Keys Area Committee, and is based on an assessment of all potential sources of discharges in this area meeting the provisions of 40 CFR Part 300.210(c) of the National Contingency Plan. At a minimum, this will address the following area planning elements:<br>• Oil spill discharge and hazardous substance release history;• A risk assessment of potential sources of discharges within the area; • A realistic assessment of the nature and size of possible threats and resources at risk;<br>• Planning scenarios that provide for a Worst Case Discharge (WCD), a Maximum Most Probable Discharge (MMPD), and an Average Most Probable Discharge (AMPD) from a vessel, offshore facility (outer continental shelf activity and near shore production fields), or onshore facility (fixed and mobile) in the area, as applicable |
| 4 | FL FWC FWRI | Annex BB - Risk Analysis Places of Refuge Policy | Link | The purpose of this annex is to provide a decision-making process for response to requests for Places of Refuge; and to apply existing procedures for coordinated trans-boundary and trans-jurisdictional decision-making when necessary in responding to a request for the same. |
| 5 | FL FWC FWRI | Annex A - Contact Spreadsheet | Link | The Contact Spreadsheet serves as a comprehensive collection of links for those federal, state, and local agencies, as well as tribal authorities, which may have jurisdiction or regulatory authority over a pollution event, or that which can provide support/expertise to a response effort. In addition, contact information for Non-Government Organizations, firefighting experts, salvage equipment providers, oil pollution response cooperatives, oil pollution response equipment providers, and members of academia who focus on issues relevant to pollution response have been included. |
| 6 | FL FWC FWRI | Annex Q - USCG Documentation Unit Organization Chart | Link | This Annex provides a flowchart of the Response Documentation Specialist Organization Chart (ICS-207) |
| 7 | FL FWC FWRI | Annex P - Initial Reporting Form | Link | This Annex provides a template Initial Reporting Form |
| 8 | FL FWC FWRI | Annex CC - Site Safety Plan | Link | The purpose of health and safety efforts conducted during an environmental emergency are to ensure the protection of the responders, clean-up crews and the public from the possible hazards. The guidance contained in this policy document is intended to assist Safety Officers to establish, manage, and operate a safe spill response to the reported incident. |
| 9 | FL FWC FWRI | Annex DD - Public Health and Safety: Environmental Health Support Guidance | Link | Provides links to Federal, State, and local health authorities. |
| 10 | FL FWC FWRI | Annex EE - Public Health and Safety: Community Air Monitoring Guidance | Link | This document is intended to be used as a tool to assist emergency responders in establishing a Community Air Monitoring (CAM) program during an emergency response. Additionally, this document standardizes the process for air monitoring data collection, analysis, and dissemination |

# Planning and Response Tools

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|---|---|---|---|---|
| 11 | FL FWC FWRI | Annex FF - Public Health and Safety: Water Sampling Protocols | Link | This document contains guidance and plan templates to standardize the process to collect, analyze, and disseminate sampling results that can support decision-making during a response. Sampling guidance throughout the plan only covers surface water. |
| 12 | FL FWC FWRI | Annex 6 - Response Protocols - 96 Hour Plan | Link | Provides a link to the 96 Hour Checklist. The Response Protocols: 96 Hour Checklist is a spreadsheet designed to serve as a prompt for responders to execute important actions by outlining key incident response milestones and actions in a logical, chronological way. |
| 13 | FL FWC FWRI | Annex 6 - Response Protocols Excel Spreadsheet | Link | Checklist in an Excel spreadsheet. |
| 14 | FL FWC FWRI | Annex G - Response Protocols - Volunteers | Link | This annex provides access to the National Response Team (NRT) Use of Volunteers Guidelines for Oil Spills which outlines in detail how the FOSC may use the services of volunteers during a response. The use of volunteers must be in accordance with statutory authorities and other applicable laws. |
| 15 | FL FWC FWRI | Annex GG - Response Protocols - Disposal | Link | The purpose of this policy is to provide guidance for making a waste determination for proper disposal of materials (i.e. sorbents, solidifiers, etc.) and debris (i.e., Personal Protective Equipment (PPE), rags, soil, etc.) contaminated by hydrocarbons. This guidance describes the chronology of activities necessary for decision making for coordinating proper disposal of materials contaminated by hydrocarbons in accordance with all local, state and federal regulations |
| 16 | FL FWC FWRI | Annex M - Consultations - Florida SHPO | Link | This Annex outlines the relationship between the Florida Division of Historic Resources and the U. S. Coast Guard as it relates to notification, coordination, and consultation under the National Historic Preservation Act, Section 106. |
| 17 | FL FWC FWRI | Annex D - Hazardous Substance Response | Link | The purpose of this annex is to provide WCF ACP users with information specific to responses to hazardous substance releases, including WMD incidents. |
| 18 | FL FWC FWRI | Annex E - Marine Firefighting and Salvage | Link | This plan provides a planning and coordination framework for salvage and firefighting response activities needed to facilitate the recovery of the United States (U.S.) Marine Transportation System (MTS) following a Transportation Security Incident or Marine Casualty. The plan further supports the clearing of the port navigation system in waterways to enable the resumption of maritime commerce. |
| 19 | FL FWC FWRI | Annex 10 - Natural Disaster Response Plan | Link | Pollution response, under the umbrella of the National Response Framework (NRF), will be successful because of the plans, capabilities, and partnerships forged in accordance with the National Contingency Plan (NCP), combined with the effective use of the Incident Command System (ICS). |
| 20 | FL FWC FWRI | Annex L - Unconventional Oil Response | Link | Recent events have brought this new threat to the attention of only portions of the response community. Many areas still lack the awareness or experience related to responding to incidents involving unconventional oils. Furthermore, responders may be unfamiliar with the parties potentially involved in an incident and their associated responsibilities, capabilities and resources |

# Planning and Response Tools

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|---|---|---|---|---|
| 21 | DoD | All Partners Access Network (APAN) * | Link | Similar to Homeland Security Information Network (HSIN) in capabilities, the All Partners Access Network (APAN) is the Unclassified Information Sharing Service (UISS) for the U.S. Department of Defense (DOD). It offers a variety of collaboration tools that can be used alone or in conjunction with other tools to plan an event, execute an exercise, or respond to a disaster. For instance, APAN is an excellent resource to facilitate meetings through Adobe Connect through a community space (the group owner must set up the Adobe Connect meeting space and can grant access to non-APAN account holders).<br>**User Accounts & Security:** APAN is unclassified and can be accessed by anyone to view publicly-accessible data. To access restricted, non-public data, users can apply for an APAN account which can be easily be set-up in less than 5 minutes.<br>Every 90 days, your password will expire. When you login, you will be prompted with a message notifying you to reset your password.<br>• If you have not logged into APAN for 6 months, your account will expire. Before this happens, you will receive an automated notification email which will prompt you to log in and change your password.<br>• If you have not logged into APAN longer than 6 months and your account is expired, you will need to contact APAN support on the website. Your account will be reviewed and reactivated based on information provided. |
| 22 | USCG | NPFC Claims Forms & Documents | Link | NPFC's guidance documents and forms related to submitting claims for damages and uncompensated removal costs under the Oil Pollution Act (OPA) of 1990. |
| 23 | NIOSH/CDC | Pocket Guide to Chemical Hazards/The National Institute for Occupational Safety and Health (NIOSH)/Centers for Disease Control (CDC) | Link | The NIOSH Pocket Guide to Chemical Hazards (NPG) informs workers, employers, and occupational health professionals about workplace chemicals and their hazards. The NPG gives general industrial hygiene information for hundreds of chemicals/classes. The NPG clearly presents key data forchemicals or substance groupings (such as cyanides, fluorides, manganese compounds) that are found in workplaces. The guide offers key facts, but does not give all relevant data. The NPG helps users recognize and control workplace chemical hazards. |
| 24 | E-CFR | 29 C.F.R. 1910.120 | Link | Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations for Emergency Response (HAZWOPER) requirements. |
| 25 | E-CFR | 30 C.F.R. 254 | Link | Outer Continental Shelf (OCS) Oil Spill Response Plans (OSRPs) Requirements OPA |
| 26 | E-CFR | 33 C.F.R. 154 | Link | Marine Transfer Regulated (MTR) Facility Response Plan (FRP) Requirements OPA |
| 27 | E-CFR | 33 C.F.R. 155 | Link | Vessel Response Plan Requirements OPA |
| 28 | E-CFR | 33 C.F.R. 156 | Link | Oil and Hazardous Material Transfer Operations |
| 29 | E-CFR | 33 C.F.R. 3.40-28 | Link | Captain of the Port Zone definition: Marine Safety Unit Port Arthur |
| 30 | E-CFR | 33 C.F.R. 67.30.5 | Link | Obstruction lighting requirements for sunken vessels or other navigation hazards. |
| 31 | | 33 U.S.C § 1251 *et seq* . | Link | Clean Water Act (CWA) |
| 32 | | 33 U.S.C § 2701 *et seq* . | Link | Oil Pollution Act of 1990 (OPA) |
| 33 | E-CFR | 40 C.F.R. 112 | Link | Facility Response Plan requirements for the Inland Zone |
| 34 | E-CFR | 40 C.F.R. 300 | Link | The National Contingency Plan (NCP) for Oil Spills and Hazardous Substance Releases |
| 35 | E-CFR | 40 C.F.R. 300 Subpart J | Link | NCP - Subpart J (Use of Dispersants and Other Chemicals) |
| 36 | E-CFR | 40 C.F.R. 300.210(c)(3)(i) | Link | NCP Areas of Special Economic or Environmental Importance protection requirement |
| 37 | E-CFR | 40 C.F.R. 300.315 | Link | National Contingency Plan documentation and cost recovery requirements |
| 38 | E-CFR | 40 C.F.R. 300.324 | Link | NCP Worst Case Discharge requirements |
| 39 | E-CFR | 40 C.F.R. 300.910(d) | Link | Emergency Chemical Countermeasure Provision |
| 40 | E-CFR | 40 C.F.R. 302 Table 117.3 | Link | Reportable Quantities for Hazardous Substances |
| 41 | E-CFR | 40 C.F.R.320(a)(5)(b) | Link | Terminating Cleanup Operations - Removal Completion Determination |
| 42 | | 42 U.S.C. § 9601 *et seq* . | Link | Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) |
| 43 | E-CFR | 49 C.F.R. 194 | Link | Pipeline Oil Spill Response Plan (OSRP) Requirements-DOT PHMSA |

# Planning and Response Tools

| No. | Source | Topic | Hyperlinks | Description<br>Note: After sorting, select all (triangle at left top of screen) Home Tab>Cells>Format "AutoFit Row Height". |
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| 44 | HHS | Agency for Toxic Substance and Disease Registry (ATSDR) | Link | HHS through the Agency for Toxic Substance and Disease Registry (ATSDR), serves the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and disease related to toxic substances. These include public health assessments of waste sites, health consultations concerning specific hazardous substances, health surveillance and registries, response to emergency release of hazardous substances, applied research in support of public health assessments, information development and dissemination, and education and training concerning hazardous substances. |
| 45 | FFWCC | Oil Spill Planning and Emergency Response | Link | State of Florida oil spill response information. |
| 46 | NOAA | Alternative Response Tool Evaluation System (ARTES) | Link | To aid in evaluating non-conventional alternative countermeasures in particular, the Alternative Response Tool Evaluation System (ARTES) was developed. ARTES can also be used to evaluate proposed conventional countermeasures. It is designed to evaluate potential response tools on their technical merits, rather than on economic factors. ARTES is designed to work in concert with the National Contingency Plan (NCP) Product Schedule and the Selection Guide for Oil Spill Response Countermeasures.<br>Under ARTES, an Alternative Response Tool Team (ARTT) rapidly evaluates a proposed response tool and provides feedback to the OSC in the form of a recommendation. The OSC then can make an informed decision on the use of the proposed tool. A set of forms for use in the process can be accessed on the website. |
| 47 | NOAA | AOR and MOA Boundary Maps | Link | Use ERMA to view-no password needed to view this basic information. |
| 48 | Monroe County EM | Monroe County EM | Links | Local emergency plans |
| 50 | NOAA | Areal Locations of Hazardous Atmospheres (ALOHA) | Link | Areal Locations of Hazardous Atmospheres (ALOHA) is a hazard model that estimates how a chemical cloud travels in the air after a spill and identifies areas where a threat to people may exist. It also models some types of fires and explosions.<br>Note the link takes you to an ALOHA Fact Sheet. There is a link on the second page that takes you to a page that allows you to actually download the software. May not work on CG workstations. |
| 51 | NOAA | Automated Data Inquiry for Oil Spills (ADIOS®) | Link | ADIOS® is NOAA's oil weathering model. It's an oil spill response tool that models how different types of oil weather (undergo physical and chemical changes) in the marine environment. This program is available for download on the CG Enterprise system. |
| 52 | USFWS | Best Practices for Migratory Bird Care during Oil Spill Response | Link | National “best practices” using established protocols for keeping unoiled birds away from an oil spill and for dealing with oiled birds. Establishes a standardized approach to help protect wildlife resources, enables On-Scene Coordinators (OSCs) to focus on other aspects of spill response, and helps instill public confidence in overall response activities. |
| 53 | DOI | Bureau of Safety and Environmental Enforcement (BSEE) | Link | The Bureau of Safety and Environmental Enforcement (BSEE) works to promote safety, protect the environment, and conserve resources offshore through vigorous regulatory oversight and enforcement. BSEE’s Offshore Regulatory Program develops standards and regulations to enhance operational safety and environmental protection for the exploration and development of offshore oil and natural gas on the U.S. Outer Continental Shelf (OCS). |
| 54 | BSEE | Bureau of Safety and Environmental Enforcement (BSEE) Data Center | Link | The BSEE and BOEM Data Center allows users to access public information and data pertaining to Outer Continental Shelf Leasing, Platform, Production, Pipeline, and Exploration and Development Plan information. Data are available via online queries, as well as downloadable PDF reports, ASCII files, and scanned documents available in PDF format. Some files are available for purchase on CD/DVD/Blu-Ray media. The "Quick Data Online Query" link on the main page provides small result sets for data keys entered in for each particular subject in the Data Center. This function is intended to show new users what is available and help refine their search. |
| 55 | HHS | Centers for Disease Control and Prevention (CDC) | Link | Public Health Technical Specialists from the HHS Centers for Disease Control and Prevention (CDC) and ATSDR can assist with environmental health support. Environmental Health Support Guidance for Texas and Louisiana is located in Appendix 8 of Volume 2. |
| 56 | NFPA | Certified Marine Chemist (CMC) | Link | The United States Coast Guard and the Occupational Safety and Health Administration require that a certificate issued by a Marine Chemist must be obtained before hot work or fire producing operations can be carried out in certain spaces aboard a marine vessel. In complying with both the U.S. Coast Guard and OSHA regulations, a Marine Chemist applies the requirements contained in National Fire Protection Association Standard 306. |

# Planning and Response Tools

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| 57 | NOAA | Characteristics of Coastal Habitats: Choosing Spill Response Alternatives for oil spills | Link | When choosing effective response options, including natural recovery, you must consider trade-offs affecting the option's potential environmental impact, its appropriateness for the habitat, and timing of its application. Environmental Considerations for Marine Oil Spill Response discusses these considerations in detail. Remember that the benefits and impacts of response options depend upon incident-specific conditions and affect the suitability of the option for use in a habitat during any spill. For example, dove-tailing multiple methods simultaneously throughout an incident might produce a more effective response and fewer adverse environmental impacts. |
| 58 | NOAA | Characteristics of Response Strategies: A Guide for Spill Response Planning in Marine Environments | Link | Oil is a complex and variable natural substance. When released into the sea it can be transported long distances, undergo various physical and chemical changes, and adversely affect marine ecosystems. Oil's fate and effects depend on the type and quantity of oil spilled, properties of the oil as modified over time by physical and chemical processes, the organisms and habitats exposed, and the nature of the exposure. All of these factors should be considered when evaluating response methods. Interactions among these variables result in a large range of spill situations. Accordingly, spill responders must determine the combination of response methods that best suits the spill situation. |
| 59 | CHRIS | Chemical Hazard Response Information System (CHRIS) Manual | Link | The Chemical Hazards Response Information System (CHRIS) is designed to provide information needed for decision-making by responsible Coast Guard personnel during emergencies that occur during the water transport of hazardous chemicals. CHRIS also provides much information that can be used by the Coast Guard in its efforts to achieve better safety procedures and prevent accidents. CHRIS consists of a handbook or manual, a hazard assessment computer system (HACS), and technical support personnel located at Coast Guard headquarters. These components and their relations to one another are described in Section 2 of this manual. This manual is available in pdf format on the Homeland Security Digital Library. |
| 60 | USCG | Classified OSRO listings | Link | The NSFCC maintains a portion of the RRI database that allows all interested parties (no administrative access required) open access to reports about a company's Mechanical, Dispersant, Marine Fighting and Salvage and Non-Floating Oil classifications. This site also provides a point of contact report (listed by name/company number) for all the OSRO's in the United States. The mechanical classification reports can be viewed by company name, by USCG District, or by COTP zone and outline which operating environments the classification has been granted (Rivers/Canals, Nearshore, Open Ocean, Inland, etc.) and for which volume of discharge. |
| 61 | USCG | Common Access Reporting Tool (CART) * | Link | The Common Access Reporting Tool (CART) was designed to focus U.S. Coast Guard efforts during a Marine Transportation System (MTS) interruption incident. CART is intended to positon CG units to be prepared to respond to the need for near real-time status information for efficient MTS Recovery. An event is created when significant impacts to the MTS are anticipated. CART is maintained by the Maritime Transportation Safety & Recovery Unit (MTSRU) which logs information relative to port status, MTS impacts, and essential elements of information (EEI).<br>Creating a CART account requires registration and approval.<br>Upon registration, your request is forwarded to the administrator who will email you a log in username and temporary password. At the main screen, the top menu will allow you to create or view active events. There will be drop down boxes on each event to select the area you wish to view. It is recommended to type your CART event in MS Word first, save, then paste into the appropriate cell. Also, save your work as you enter it. The system does not recognize someone typing, and it will log you out. The system logs you out without notice, and your information could be lost.<br>You will be required to log in monthly to maintain your account access |
| 62 | NOAA | Computer-Aided Management of Emergency Operations (CAMEO®) Chemicals | Link | CAMEO Chemicals is a program with response recommendations and physical properties for thousands of hazardous substances and it also includes a tool for predicting possible hazards that could occur if chemicals mix. The program is available is several formats, including a CAMEO Chemicals app for iOS and Android. |

# Planning and Response Tools

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|---|---|---|---|---|
| 63 | NOAA | Computer-Aided Management of Emergency Operations (CAMEO®) software suite | Link | The CAMEO® (Computer-Aided Management of Emergency Operations) software products have been valuable hazardous substance response and planning tools since the first products were introduced in 1986.<br>The CAMEO software suite consists of four core programs: CAMEOfm, CAMEO Chemicals, ALOHA®, and MARPLOT®. These applications can be used together or separately, but when they are used together, the programs interact seamlessly and information can be linked easily between them.<br>In addition to these core programs, there are several other programs that can be used with the CAMEO software suite. |
| 64 | RRT-4 | Coordinating Natural Resource Damage Assessment (NRDA) with the Response | Link | Click on Link and search for NRDA. Following a hazardous release or discharge, natural resource trustees have responsibilities for assessing resulting injury to the environment. NRDA is the process by which trustees collect, compile, and evaluate data to determine the extent of injury to natural resources. The information gathered is used to assess damages, determine the restoration required to compensate for the injured natural resources and lost use of resources, and seek recovery of those damages from the RP. NRDAs are typically initiated concurrent with response activities. |
| 65 | PHMSA | DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) AskRail® User Guide & AskRail® App for Smart Device * | Link | AskRail® is a free mobile application, available through the Apple App Store and Google Play, that provides immediate access to accurate, near real-time information about railcars carrying hazardous materials on a train. It serves emergency responders who arrive first to the scene of a rail incident and helps them make informed decisions about how to respond.<br>Note: A Windows version of AskRail® is also available for Internet Ready Devices through the AskRail® website (www.askrail.us).<br>Because certain information available through AskRail® is sensitive, only qualified users and users who have completed industry-sponsored training for emergency responders, have registered their mobile device, and have validated their email address with Railinc can gain full access to the railcar lookup functionality and "Top 125" feature. Note that the railcar lookup functionality should only be used for actual emergency situations and/or training purposes. |
| 66 | PHMSA | DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) Emergency Response Guidebook (ERG) | Link | PHMSA's 2016 Emergency Response Guidebook provides first responders with a go-to manual to help deal with hazmat transportation accidents during the critical first 30 minutes. The 2016 version is the most recent version available on-line or in Mobile App version. The ERG is updated every 4 years, the next version will be in 2020 but has not been updated on the web at this time. |
| 67 | PHMSA | DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) National Pipeline Mapping System * | Link | The National Pipeline Mapping System (NPMS) is a dataset containing locations of and information about gas transmission and hazardous liquid pipelines and Liquefied Natural Gas (LNG) plants which are under the jurisdiction of the Pipeline and Hazardous Materials Safety Administration (PHMSA). The NPMS also contains voluntarily submitted breakout tank data. The data is used by PHMSA for emergency response, pipeline inspections, regulatory management and compliance, and analysis purposes. It is used by government officials, pipeline operators, and the general public for a variety of tasks including emergency response, smart growth planning, critical infrastructure protection, and environmental protection.<br>This website contains:<br>•The NPMS Public Map Viewer, which allows the public to view pipeline maps in a user-selected county;<br>•PIMMA, which allows government officials and pipeline operators to view pipeline maps with additional scope and detail; and<br>•Find Who's Operating Pipelines in Your Area, which searches for pipeline operator contact information in a user-selected county, state, or ZIP code. |

# Planning and Response Tools

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|---|---|---|---|---|
| 68 | NOAA | Environmental Response Management Application (ERMA) * | Link | The Environmental Response Management Application (ERMA®) is a web-based geographic information system (GIS) tool that helps emergency responders and environmental resource managers deal with incidents that may adversely impact the environment. ERMA combines real-time and static data to display a single interactive map that makes it easy for users to visualize an active environmental situation or long-term case assessment.<br>Because ERMA is web-based, users do not have to download any proprietary software onto their computers. It also offers the following advantages:<br>• It facilitates the integration and synthesis of various types of information.<br>• It provides a common operational picture to all individuals involved in a response.<br>• It improves communication and coordination among responders and stakeholders.<br>ERMA gives resource managers the information they need to make informed decisions when dealing with an incident. The maps it generates are worth the proverbial "thousand words" when communicating the status of response activities.<br>**User Accounts & Security:** ERMA can be accessed by anyone to view publicly-accessible data. To access restricted, non-public data, ERMA users who are active in the environmental response, planning, restoration, and assessment community can apply for an ERMA account. Each account request requires a NOAA Sponsor and is reviewed by an ERMA Account Admin before being approved.<br>Every 90 days, your password will expire. When you login, you will be prompted with a message notifying you to reset your password. You may change or reset your password before then by clicking the "Change Password" function at the top right of the page.<br>• If you have not logged into ERMA for 6 months, your account will expire. Before this happens, you will receive an automated email 2 weeks in advance notifying you of this occurrence and to log in again. You will also be required to create a new password.<br>• If you have not logged into ERMA longer than 6 months and your account is expired, when you try to log in, a notice will appear to contact the orr.ermaaccounts@noaa.gov email. Your account will be reviewed and reactivated based on information provided.<br>Microsoft Internet Explorer does not work with ERMA. |

# Planning and Response Tools

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| 69 | NOAA | Environmental Response Management Application (ERMA) * | Link | The Environmental Response Management Application (ERMA®) is a web-based geographic information system (GIS) tool that helps emergency responders and environmental resource managers deal with incidents that may adversely impact the environment. ERMA combines real-time and static data to display a single interactive map that makes it easy for users to visualize an active environmental situation or long-term case assessment.<br>Because ERMA is web-based, users do not have to download any proprietary software onto their computers. It also offers the following advantages:<br>• It facilitates the integration and synthesis of various types of information.<br>• It provides a common operational picture to all individuals involved in a response.<br>• It improves communication and coordination among responders and stakeholders.<br>ERMA gives resource managers the information they need to make informed decisions when dealing with an incident. The maps it generates are worth the proverbial "thousand words" when communicating the status of response activities.<br>**User Accounts & Security:** ERMA can be accessed by anyone to view publicly-accessible data. To access restricted, non-public data, ERMA users who are active in the environmental response, planning, restoration, and assessment community can apply for an ERMA account. Each account request requires a NOAA Sponsor and is reviewed by an ERMA Account Admin before being approved.<br>Every 90 days, your password will expire. When you login, you will be prompted with a message notifying you to reset your password. You may change or reset your password before then by clicking the "Change Password" function at the top right of the page.<br>• If you have not logged into ERMA for 6 months, your account will expire. Before this happens, you will receive an automated email 2 weeks in advance notifying you of this occurrence and to log in again. You will also be required to create a new password.<br>• If you have not logged into ERMA longer than 6 months and your account is expired, when you try to log in, a notice will appear to contact the orr.ermaaccounts@noaa.gov email. Your account will be reviewed and reactivated based on information provided.<br>Microsoft Internet Explorer does not work with ERMA. |
| 70 | EPA | EPA Chemical, Biological, Radiological, and Nuclear (CBRN) Consequence Management Advisory Division (CMAD) | Link | Following a hazardous release or discharge, natural resource trustees have responsibilities for assessing resulting injury to the environment. NRDA is the process by which trustees collect, compile, and evaluate data to determine the extent of injury to natural resources. The information gathered is used to assess damages, determine the restoration required to compensate for the injured natural resources and lost use of resources, and seek recovery of those damages from the RP. NRDAs are typically initiated concurrent with response activities. |
| 71 | EPA | EPA CompTox Chemical Dashboard | Link | The EPA CompTox Chemical Dashboard is a one-stop-shop for chemistry, toxicity and exposure information for over 875,000 chemicals. Data and models within the Dashboard also help with efforts to identify chemicals of most need of further testing and reducing the use of animals in chemical testing. |
| 72 | EPA | EPA Environmental Response Team (ERT) | Link | The ERT provides Scientific Support Coordinators (SSC) with expertise in treatment technology, biology, chemistry, hydrology, geology, and engineering. The ERT also has access to special decontamination equipment and can provide advice on a wide range of issues such as a multimedia sampling and analysis program, on-site safety (including development and implementation plans), cleanup techniques and priorities, water supply decontamination and protection, application of dispersants, environmental assessment, degree of cleanup required, and disposal of contaminated material. |
| 73 | EPA | EPA Incident Waste Decision Support Tool (I-WASTE) * | Link | EPA's Incident Waste Decision Support Tool (I-WASTE) is a web-based decision support tool that organizes information related to managing waste resulting from natural disasters, terrorist attacks, or animal health emergencies. I-WASTE can be used by emergency response authorities, waste industry stakeholders, and tribal and local agencies responsible for making waste management decisions.<br>The tool provides guidance to work through important waste management issues to ensure public and worker safety during the removal, transport, treatment, and disposal of contaminated waste, as well as tools to estimate waste quantities and locate potential treatment and disposal facilities.<br>*A UserID and password are required to access the I-WASTE tool. |

# Planning and Response Tools

| No. | Source | Topic | Hyperlinks | Description<br>Note: After sorting, select all (triangle at left top of screen) Home Tab>Cells>Format "AutoFit Row Height". |
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| 74 | EPA | EPA Local Government Reimbursement Program | Link | Local and federally recognized tribal governments may request reimbursement against the Superfund for their costs accrued carrying out temporary measures to protect human health and the environment without a contract or cooperative agreement. This document describes how and under what circumstances these entities may seek reimbursement. |
| 75 | EPA | EPA Radiological Emergency Response (RERT) Team | Link | The RERT provide on-site support including mobile monitoring laboratories for field analysis of samples, as well as fixed laboratories for radiochemical sampling and analyses. Request for support may be made 24 hours a day via the NRC or directly to the EPA Radiological Response Coordinator in the Office of Radiation Programs (ORP). |
| 76 | EPA | EPA Response Manager * | Link | Response Manager is the EP's database used to collect, process, and disseminate operational information during response to man made or natural disasters.<br>*Access will be granted by the EPA through its contractor as needed. |
| 77 | USCG | NPFC | Link | National Pollution Funds Center User Reference Guide |
| 78 | BSEE | Estimated Burning System Potential Calculator (EBSP) | Link | The EBSP Calculator is intended as a planning tool for estimating the potential In-situ Burn (ISB) use on discharged oil relative to other response strategies. This planning tool is NOT intended to be used as a model for calculating system performance during an actual oil spill, which is affected by many factors such as the distribution of oil on the water surface, oil weathering, and other ambient onscene conditions which are not included in these calculators. |
| 79 | BSEE | Estimated Dispersant System Potential Calculator (EDSP) | Link | The EDSP Calculator is intended as a planning tool for estimating the potential dispersant use on discharged oil relative to other response strategies. This planning tool is NOT intended to be used as a model for calculating system performance during an actual oil spill, which is affected by many factors such as the distribution of oil on the water surface, oil weathering, and other ambient onscene conditions which are not included in this calculator. |
| 80 | BSEE | Estimated Recovery System Potential Calculator (ERSP) | Link | The ERSP Calculator is intended as a planning tool for estimating the potential of mechanical recovery response systems to mitigate recovery of discharged oil relative to other methods. This planning tool is NOT intended to be used as a model for calculating system performance during an actual oil spill, which is affected by many factors such as the distribution of oil on the water surface, oil weathering, and other ambient onscene conditions which are not included in this calculator. |
| 81 | DOJ | Federal Bureau of Investigation (FBI) National Security Branch | Link | The FBI, under the DOJ, is the lead federal agency for responding to threats from weapons of mass destruction (WMD). The Bureau investigates and collects intelligence on WMD-related threats and incidents to prevent attacks and respond to them when they occur. WMD Directorate (WMDD) is part of the FBI's National Security Branch. The WMDD leads the FBI's efforts to mitigate threats from chemical, biological, radiological, nuclear, or explosive weapons. |
| 82 | FEMA | FEMA Emergency Management Institute Link (Reference for ICS Training) | Link | The National Preparedness online Course Catalog provides searchable, integrated information on courses provided or managed by FEMA's Center for Domestic Preparedness (CDP), Emergency Management Institute (EMI), and National Training and Education Division (NTED) in order to train and educate the emergency response community. |
| 83 | NOAA | FOSC's Guide to NOAA Scientific Support | Link | This guidebook was written for oil and chemical spill responders and Federal On-Scene Coordinators (FOSCs) and provides a quick reference to the range of scientific support services available from the NOAA Office of Research & Restoration (OR&R) through its Emergency Response Division (ERD). The guidebook is available in PDF with links to relevant files, websites and email addresses as well as a printable "booklet" version. |
| 84 | NOAA | General NOAA Operational Modeling Environment (GNOME) suite & related programs | Link | GNOME (General NOAA Operational Modeling Environment) is the modeling tool the Office of Response and Restoration's (OR&R) Emergency Response Division uses to predict the possible route, or trajectory, a pollutant might follow in or on a body of water, such as in an oil spill. |

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| No. | Source | Topic | Hyperlinks | Description<br>Note: After sorting, select all (triangle at left top of screen) Home Tab>Cells>Format "AutoFit Row Height". |
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| 85 | DHS | Homeland Security Information Network (HSIN) * | Link | The Homeland Security Information Network (HSIN) is the Department of Homeland Security's official system for trusted sharing of Sensitive but Unclassified information between federal, state, local, territorial, tribal, international, and Non-Government Organization (NGO) partners. Mission operators use HSIN to access Homeland Security data, send requests securely between agencies, manage operations, coordinate planned event safety and security, respond to incidents, and share the information they need to fulfill their missions and help keep their communities safe. Some of the features of HSIN are:<br>• Event and Incident Management<br>• Operations Support<br>• Web Conferencing (HSIN Connect)<br>• Geospatial Services<br>• Comprehensive Training<br>• Learning Management System (HSIN Learn)<br>• Alerts and Notifications<br>• Secure Messaging (HSIN Box)<br>• Instant Messaging (HSIN Chat)<br>**User Account & Security**: To obtain access to HSIN, you must be nominated into a community. Provide Mr. Carl Hatfield/Mr. Steven Woodard (District 8/SECNOLA community administrator) with your full name, email address, and EMPLID. The administrator will nominate you for access. Once approved, you will receive a follow-up email requiring additional personal information to open your account. No need to log in on a regular basis. If you forget your password, there are challenge questions you create to reset it. |
| 86 | USCG | Incident Reporting Information System (IRIS) | Link | The National Response Center (NRC) uses IRIS to collect and disseminate information on pollution, oil, chemical, radiological, biological, and other unknown discharges into the environment, as well as related non-intelligence suspicious activity and security breach incidents to federal, state, and local on-scene coordinators. The USCG is updating this Privacy Impact Assessment (PIA) to include IMSS. |
| 87 | DOI | Information Planning and Consultation (IPaC) * | Link | IPaC is a project planning tool which streamlines the USFWS environmental review process and provides updated species lists. Use this tool to see if any listed species, critical habitat, migratory birds, or other natural resources may be impacted by your project.<br>Follow IPaC's Endangered Species Review process—a streamlined, step-by-step consultation process available in select areas Louisiana (other states to follow in the near future) for certain project types, agencies, and species. Also, receive conservation measures recommended by U.S. Fish and Wildlife Service biologists to avoid, minimize, or mitigate effects to listed species. Full use of the tool's screening capabilities require creation of a free account to gain access to the Project Review and use of the Species Determination Keys.<br>Chrome Browser works best with this application. |
| 88 | NOAA | Mapping Application for Response, Planning, and Local Operational Tasks (MARPLOT) | Link | Mapping Application for Response, Planning, and Local Operational Tasks (MARPLOT) is a GIS-based mapping program that can be used with ALOHA. |
| 89 | EPA | National Disaster Operational Workgroup (NDOW) Response Manager Application * | Link | The National Disaster Operational Workgroup (NDOW) is a multi-agency group who has established a framework of standard operating procedures (SOPs), common data quality objectives and a shared database system for conducting assessments and recovery operations for man made and natural disasters for ESF-3 and ESF-10 operations. SOPs, standardized database, training and exercise materials, as well as the most current version of the EPA Response Link application can be accessed on the NDOW website. |
| 90 | National Guard | National Guard Civil Support Teams (CST) | Link | CSTs were created in 1999 to respond to terrorist incidents involving WMD, as well as other disasters and catastrophic events, both natural and man-made. There are 57 CSTs located throughout the United States, with at least one in each state and territory. |

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| No. | Source | Topic | Hyperlinks | Description<br>Note: After sorting, select all (triangle at left top of screen) Home Tab>Cells>Format "AutoFit Row Height". |
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| 91 | HHS | National Institute for Occupational Safety and Health (NIOSH) | Link | In response to requests from workers (or their representatives), employers, and other government agencies, NIOSH Health Hazard Evaluation scientists conduct workplace assessments to determine if workers are exposed to hazardous materials or harmful conditions and whether these exposures are affecting worker health. NIOSH evaluates the workplace environment and health of employees by reviewing records and conduction on-site environmental sampling, epidemiologic surveys, and medical testing. See item #61 of this document for access to the NIOSH Pocket Guide. |
| 92 | NOAA | National Oceanic and Atmospheric Administration (NOAA) | Link | NOAA provides scientific support for response and contingency planning in coastal and marine areas, including assessments of the hazards that may be involved, predictions of movement and dispersion of oil and hazardous substances through trajectory modeling, and information on the sensitivity of coastal environments to oil and hazardous substances. |
| 93 | NOAA | National Oceanic Atmospheric Administration (NOAA) Characteristics of Coastal Habitats: Choosing Spill Response Alternatives | Link | This is a job aid designed for anyone who needs to decide if, where, when, and how to remove oil from coastal habitats. It illustrates typical attributes of North American coastal habitats at risk from oil spills.<br>The text describes each habitat and discusses how oil is likely to behave there and considerations for treating oil. The guide is especially useful for people participating in cleanup assessment as part of an Environmental Unit within the Incident Command System (ICS).<br>Note: Use this job aid in conjunction with SCAT assessments. |
| 94 | USCG | National Pollution Funds Center (NPFC) Users Guide (eURG) | Link | The National Pollution Funds Center (NPFC) Users Guide (eURG) is designed to be a reference tool during an oil or hazardous substance spill incident for Coast Guard and EPA Federal On-Scene Coordinators (FOSCs). It includes all relevant Federal regulations, technical operating procedures (TOPs), forms and sample letters, and other documentation designed to make funding of recovery operations and recovery of Federal expenditures as efficient and easy as possible. |
| 95 | USCG | National Preparedness for Response Exercise (PREP) Guidelines | Link | The National Preparedness for Response Exercise (PREP) Guidelines 2016.1 describe the minimum expectations for ensuring adequate response preparedness. |
| 96 | FEMA | National Response Framework (NRF) | Link | The National Response Framework (NRF) is a guide which provides foundational emergency management doctrine for how the Nation responds to all types of incidents. The NRF is built on scalable, flexible, and adaptable concepts identified in the National Incident Management System (NIMS) to align key roles and responsibilities across the Nation. The structures, roles, and responsibilities described in this framework can be partially or fully implemented in the context of a threat or hazard, in anticipation of a significant event, or in response to an incident. |
| 97 | NRF | National Response Framework's Emergency Support Function (ESF) #10 Annex – Oil and Hazardous Materials Response | Link | ESF #10 may be activated for a Stafford Act response, at the Secretary of Homeland Security's discretion, and/or in response to a request for Federal-to-Federal support. Federal response to oil or hazardous materials incidents may also be carried out under another key Federal response authority called the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), which is a regulation with the force of law found at 40 CFR Part 300. The NCP serves as an operational supplement to the NRF and may be used in conjunction with, or independent from, the Stafford Act. This annex provides an overview of both ESF #10 and NCP responses. |
| 98 | NRT | National Response Team (NRT) Website | Link | The U.S. National Response Team (NRT) provides technical assistance, resources, and coordination on preparedness, planning, response, and recovery activities for emergencies involving hazardous substances, pollutants and contaminants, oil, and weapons of mass destruction in natural and technological disasters and other environmental incidents of national significance. They also provide an abundance of information, studies, guidelines, and best practices for Oil Spill and Hazardous Substance response.<br>This site also provides links to all Regional Response Team (RRT) sites. |
| 99 | NRT | National Response Team's (NRT) Joint Information Center (JIC) Guidelines | Link | Considering the high level of environmental awareness in many communities, any pollution incident is likely to generate interest from the public and the media. The public's perception of a response's success or failure is often determined early on in the response; this makes the need to provide the public with timely, accurate information critical. For smaller responses these efforts can be managed by a Public Information Officer or appropriate Branch Chief; however, large, more complex events will require the establishment of a Joint Information Center (JIC) to manage information access and flow. |

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| 100 | NRT | National Response Team's (NRT) Use of Volunteers Guidelines for Oil Spills | Link | In times of crisis or trouble, many citizens feel compelled to help or lend their assistance and expertise to the response effort. This help can be welcome if the demands of an incident exceed the available resources or if a particular set of skills are in short supply. Volunteers can support response efforts in any number of ways such as by conducting beach surveillance, providing logistical support or assisting in the treatment of impacted wildlife. The decision to employ volunteers will take into account the benefits that might be gained weighed against safety and liability realities. |
| 101 | USCG | National Strike Force Coordination Center (NSFCC) | Link | The NSFCC manages the NSF which is authorized as the National Response Unit required under OPA, with responsibility for administering the USCG Strike Teams, maintaining response equipment inventories and logistical networks, and conducting national exercise programs including pollution response exercises. |
| 102 | NTSB | National Transportation Safety Board (NTSB) | Link | The National Transportation Safety Board is an independent federal agency dedicated to promoting aviation, railroad, highway, marine, pipeline and hazardous materials safely. In accordance with the CG/NTSB MOU and 46 C.F.R. 4.40-15(b), the NTSB shall conduct the investigation of certain major marine and public/nonpublic vessel casualties. Except for the preliminary investigation, a separate Coast Guard casualty investigation will not be conducted, nor will parties in interest be designated by the Coast Guard. Although these investigations are conducted by the NTSB in accordance with their procedures, the Coast Guard will participate fully as a party. |
| 103 | NWS | National Weather Service (NWS) | Link | NWS is a federal organization within NOAA, can provide various types of support to an IC/UC operating in the the Tampa Bay region through its Ruskin, FL office which covers all of Levy County south to all of Collier County. |
| 104 | NOAA | Natural Resource Damage Assessment (NRDA) Process | Link | The National Oceanic and Atmospheric Administration (NOAA) published a final rule to guide trustees in assessing damages to natural resources from discharges of oil. The Natural Resource Damage Assessment (NRDA) is divided into three phases: pre-assessment, restoration planning and restoration implementation. This document outlines the steps trustees must follow during each phase of the assessment. |
| 105 | EPA | Natural Resource Trustees (CERCLA) | Link | CERCLA and OPA authorize the United States, states, and Indian Tribes to act on behalf of the public as Natural Resource Trustees for natural resources under their respective trusteeships. OPA also authorizes foreign governments to act as Trustees. |
| 106 | USCG | Natural Resource Trustees (OPA) | Link | CERCLA and OPA authorize the United States, states, and Indian Tribes to act on behalf of the public as Natural Resource Trustees for natural resources under their respective trusteeships. OPA also authorizes foreign governments to act as Trustees. |
| 107 | EPA | NCP Product Schedule | Link | This is the most current listing of approved substances for use on an oil discharge and can be found in 40 C.F.R § 300.920(e). The listing of a product on the Product Schedule does not mean that EPA approves, recommends, licenses, certifies, or authorizes the use of the product on an oil discharge. The listing means only that data have been submitted to EPA as required by 40 C.F.R § 300.915. |
| 108 | NOAA | NOAA Aerial Observer Checklist | Link | Aerial Oil Observation Checklist Job Aid to use in conjunction with NOAA Job Aid for Aerial Observation. |
| 109 | NOAA | NOAA Characteristics of Response Strategies: A Guide for Spill Response Planning in Marine Environments | Link | This document summarizes the technical rational for selecting response methods. A companion guide to Environmental Considerations for Marine Oil Spill Response, Characteristics of Response Strategies can help you select appropriate response options to minimize adverse environmental impacts of a marine oil spill. The guide discusses developing incident-specific strategies and describes the characteristics of individual response methods. Response methods include natural recovery, mechanical, chemical, and biological treatments; and in-situ burning. |
| 110 | NOAA | NOAA Data Integration, Visualization, Exploration, and Reporting (DIVER) Explorer | Link | NOAA and its partner agencies often collect and maintain a large amount of data to document the location and extent of injuries to the environment. To determine impacts from an incident, samples may be taken from air, water, sediment, oil, and even tissue from wildlife. Field teams may also record environmental conditions (e.g., water temperature, salinity, and oxygen levels) and visual observations (e.g., vegetation density, wildlife counts, and indicators of wildlife heath).<br>The Data Integration, Visualization, Exploration, and Reporting (DIVER) tool was developed by NOAA to support these Natural Resource Damage Assessment (NRDA) efforts. |

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| 111 | NOAA | NOAA Debris Emergency Response Guides | Link | Debris Response Guides were developed via the NOAA Sea Grant Program with local, state, and federal agencies and are aimed at improving preparedness by facilitating a coordinated, well-managed, and immediate response to acute waterway debris incidents. Existing response structures at the local, state, and federal levels have been identified, capturing all relevant responsibilities and existing procedures into one guidance document for easy reference. This is an excellent resource for determining response capabilities of the various agencies. |
| 112 | NOAA | NOAA Dispersant Application Observer Job Aid | Link | This job aid was prepared as a companion guide for individuals who have completed training in dispersant application observation. It is designed to be a refresher on observing and identifying dispersed and undispersed oil, describing their characteristics, and reporting this information to decision-makers. We recommend that this book be used with the Open Water Oil Identification Job Aid for Aerial Observation to help describe both surface oil and dispersed oil. |
| 113 | NOAA | NOAA Environmental Sensitivity Index (ESI) Maps and Data | Link | Downloadable in various formats from NOAA website: PDF, Geodatabase format with an ArcMap document (.mxd), and GIS format. Where available, you can view ESI data or PDF maps in ERMA. |
| 114 | NOAA | NOAA Fisheries Final Policies and Best Practices- Standards for Release | Link | The purposes of the NOAA Fisheries Final Policies and Best Practices-Standards for Release are as follows:<br>1. To provide guidance for determining release of rehabilitated marine mammals to the wild including marine mammal species under the jurisdiction of the NMFS (Department of Commerce) and those under the jurisdiction of the FWS (Department of the Interior);<br>2. To state the NMFS and FWS legal requirements and provide recommendations for medical, behavioral, and developmental assessment of rehabilitated marine mammals prior to release;<br>3. To identify the persons and agencies responsible for completing an assessment of a rehabilitated marine mammal for a release determination and to describe the communication requirements and process with NMFS or FWS;<br>4. To state the NMFS and FWS requirements and recommendations for identification of releasable rehabilitated marine mammal, selection of a release site, and post-release monitoring; and<br>5. This document does not include guidance for the following situations:<br>a. Immediate release following health assessment and/or emergency triage typically associated with mass stranding events, out of habitat rescues, and disentanglement efforts.<br>b. Release following relocation of healthy marine mammals. |
| 115 | NOAA | NOAA Managing Seafood Safety after an Oil Spill | Link | The NOAA Managing Seafood Safety after an Oil Spill guidance provides background information and publications describing how to monitor seafood for exposure and contamination after an oil spill. |
| 116 | NOAA | NOAA Marine Mammal Health and Stranding Response Program | Link | The Marine Mammal Health and Stranding Response Program coordinates emergency responses to sick, injured, distressed, or dead seals, sea lions, dolphins, porpoises, and whales. The 1992 Amendments to the Marine Mammal Protection Act formalized this program and designated NOAA Fisheries' Office of Protected Resources as the lead agency to coordinate related activities. The program focuses on four primary areas:<br>•Stranding and entanglement networks.<br>•Unusual mortality event response.<br>•Biosurvelliance and baseline health research.<br>•John H. Prescott Marine Mammal Rescue Assistance Grant Program. |
| 117 | NOAA | NOAA Open Water Oil Identification Job Aid for Aerial Observation | Link | An important step in oil spill response is assessing color/appearance and structure/distribution of oil spilled on the water. This information is used by the Incident Command to prioritize response efforts and direct cleanup resources. This aid was created to help you perform efficient assessments and communicate your findings effectively. It is intended that the terminology and codes presented in this Job Aid will promote consistency among observers nationwide. |

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| 118 | NOAA | NOAA ResponseLink * | Link | ResponseLink is a government system for sharing information and documents with incident responders. Federal personnel can email orr.incidentnews@noaa.gov to request a ResponseLink account. All other ResponseLink account requests must be sponsored through the local NOAA Scientific Support Coordinator (SSC).<br>The NOAA SSC populates spill or site specific information which allows information sharing amongst other NOAA personnel or registered users. It gives users access to response related information and documentation. Once you receive your password and login information there will be no need to continually log in. |
| 119 | NOAA | NOAA Scientific Support Coordinator (SSC) | Link | The SSC, in accordance with the National Contingency Plan, will provide the FOSC scientific advice with regard to the best course of action during a spill response. The SSC will help facilitate consensus from the Federal Natural Resource Trustee Agencies and provide spill trajectory analysis data, information on the resources at risk, weather information, tidal and current information, etc. |
| 120 | NOAA | NOAA Shoreline Assessment Job Aid | Link | NOAA published the Shoreline Assessment Manual (Report No. HAZMAT 97-4) which outlines methods for planning and conducting shoreline assessment and incorporating the results into the decision-making process for shoreline cleanup at oil spills. This job aid was developed to supplement the manual, providing a visual guide to many of the terms used during shoreline assessments. |
| 121 | NOAA | NOAA Shoreline Assessment Manual | Link | NOAA's Shoreline Assessment Manual describes SCAT team members, Shoreline Cleanup and Assessment Technique (SCAT) roles and responsibilities, the methods and processes for conducting shoreline assessment, and using the results to make cleanup decisions at oil spills. |
| 122 | NOAA | NOAA Shoreline Countermeasure Manuals | Link | Shoreline countermeasures are the treatments people apply to shorelines damaged by an oil spill in order to reduce the ultimate environmental impact and cost of a spill. The Shoreline Countermeasures Manuals are tools for people who must plan and implement shoreline countermeasures such as members of Regional Response Teams, Area Planning Committees, and state and local response agencies. |
| 123 | NOAA | NOAA Training Link for Spill Response Professionals. | Link | NOAA's Office of Response and Restoration offers educational resources for teachers and students, as well as various classes and references for spill response professionals in local, state, and federal government agencies and industry in order to promote more efficient planning and spill response. These classes, workshops, and resources help spill responders increase their understanding of oil spill and chemical release science when analyzing spills and making risk-based decisions. |
| 124 | NOAA | NOAA Trajectory Analysis Handbook | Link | The NOAA Trajectory Analysis Handbook provides an overview of the physical processes that affect oil movement and behavior in the marine environment. Trajectory analysis is most often done using computer models to keep track of complex, interacting processes. However, by using this guide, even without a computer-based model, you can estimate the time and length scale of an event. This guide helps responders and planners understand physical processes and potential uncertainties as they incorporate trajectory analysis into the response. |
| 125 | NOAA | NOAA Web Chemical Aquatic Fate and Effects (CAFÉ) & CAFÉ Database | Link | The Chemical Aquatic Fate and Effects (CAFE) Database is a software program you can use to estimate the fate and effects of thousands of chemicals, oils, and dispersants. CAFE serves as a tool to help responders in their assessment of environmental impacts from chemical or oil spills on aquatic environments. Using CAFE, you can choose between four different spill scenarios: chemical, oil only, dispersant only, and dispersants mixed with oil. |
| 126 | NOAA | NOAA's Remediation of Underwater Legacy Environmental Threats (RULET) | Link | The RULET project, identifies the location and nature of potential sources of oil pollution from sunken vessels. Knowing where these vessels are helps oil response planning efforts and may help in the investigation of reported mystery spills--sightings of oil where a source is not immediately known or suspected. The sunken vessels are a legacy of more than a century of U.S. commerce and warfare. |
| 127 | USCG | NPFC - Claimant Guide | Link | Claimants (individuals, corporations, and government entities) can submit claims for uncompensated removal costs or certain damages (natural resources, real/personal property, loss of profits, loss of subsistence use of natural resources, loss of government revenues, and increased cost of government services) caused by an oil spill to the NPFC if the Responsible Party for the discharge does not satisfy their claim. These guideline describe this claims process. |
| 128 | USCG | NPFC - Cost Documentation Procedures | Link | Costs generated against the fund during a response will be paid by the NPFC through the line of accounting established by the FPN or CPN. Upon completion of the response, the NPFC will seek to recover those costs from the Response Party. This document provides specific information on the FOSC's cost documentation requirements and on the cost recovery procedures. |

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| 129 | USCG | NPFC - Federal Trustee Access to the OSLTF & Natural Resource Damage Claims | Link | OPA provides access to the OSLTF by Trustees for the purpose of conducting a Natural Resource Damage Assessment (NRDA). This document describes that process and the means by which Trustees can make a Natural Resource Damage Claim |
| 130 | USCG | NPFC - Military Interdepartmental Purchase Request (MIPR) | Link | When an FOSC makes the determination that a DoD asset or DoD resources are necessary to conduct a response (i.e., SUPSALV), a Military Interdepartmental Purchase Request (MIPR), vice a PRFA, must be established. This section of the NPFC TOPs describes the process for requesting a MIPR. |
| 131 | USCG | NPFC - State Access to the OSLTF | Link | The Oil Pollution Act of 1990 (OPA) allows state Governors to request payment of up to $250,000 from the OSLTF for removal costs required for the immediate removal of a discharge of oil, or prevention of a substantial threat of a discharge of oil. Requests are made directly to the FOSC who will determine eligibility. |
| 132 | NRT | NRT Abandoned Vessel Authorities and Best Practices Guidance | Link | This document offers an FOSC a wide array of solutions to handle abandoned vessels including abatement of pollution, removal of the abandoned vessels through a variety of alternative programs, and the application of navigable waterway solutions. |
| 133 | NRT | NRT Atypical Dispersant Guidance | Link | Following the Deepwater Horizon incident it was recognized that the amount, location, and general extent of dispersant use wasn't envisioned or incorporated into the existing Regional Response Team (RRT) dispersant use plans, nor was it addressed in the existing Special Monitoring of Applied Response Technologies (SMART) monitoring program. As a result, the NRT developed the Environmental Monitoring for Atypical Dispersant Operations: Including Guidance for Subsea Application and Prolonged Surface Application document. This document provides FOSCs:<br>• Subsea application environmental monitoring guidance for operations in the subsurface ocean environment, focusing particularly on operations in waters below 300 meters, and;<br>• Prolonged surface application guidance which supplements and complements the existing protocols as outlined in the SMART monitoring program. These guidelines focus on dispersant use beyond 96 hours from the time of the first application. |
| 134 | OSHA | Occupational Safety and Health Administration (OSHA) Decontamination Site | Link | Decontamination is the process of removing or neutralizing contaminants that have accumulated on personnel and equipment during an oil spill response. Effective decontamination procedures protect responders from having unnecessary contact oil that contaminates and permeate the protective clothing, respiratory equipment, tools, vehicles, and other equipment used during the response. For more information about recommended decontamination procedures and practices please refer to the Occupational Safety and Health Administration (OSHA) Decontamination Site. |
| 135 | CGA | Oil Spill Response Cooperatives and Consortiums - Clean Gulf Associates | Link | Clean Gulf Associates website. |
| 136 | HWCG | Oil Spill Response Cooperatives and Consortiums - HWCG LLC | Link | HWCG is a consortium of deepwater operators and non-operators committed to building the safest, most comprehensive and fastest possible response system through extensive industry collaboration and mutual aid. |
| 137 | MWCC | Oil Spill Response Cooperatives and Consortiums - Marine Well Containment Company | Link | Marine Well Containment Company (MWCC) is an independent company founded in 2010 to address the need for a deepwater well containment response capability in the U.S. Gulf of Mexico. Headquartered in Houston, Texas, MWCC employs a mix of experienced engineers and crisis response specialists well-versed in the technical world of offshore operations and incident response. MWCC is a not-for-profit operation consisting of 10 member companies. Our members are some of the world's largest offshore deepwater operators and make up roughly 70 percent of drilling activity in the deepwater U.S. Gulf of Mexico. |
| 138 | OSRO | Oil Spill Response Cooperatives and Consortiums - Oil Spill Response Limited | Link | Oil Spill Response Limited website. |

# Planning and Response Tools

| No. | Source | Topic | Hyperlinks | Description<br>Note: After sorting, select all (triangle at left top of screen) Home Tab>Cells>Format "AutoFit Row Height". |
|---|---|---|---|---|
| 139 | OSRO | Oil Spill Response Cooperatives and Consortiums - Wild Well Control | Link | Wild Well Control website. |
| 140 | NOAA | Pinniped and Cetacean Oil Spill Response Guidelines: Marine Mammal Oil Spill Response Guidelines | Link | These Guidelines provide a foundation for coordination and communication between local, state and federal oil spill response agencies and the marine mammal conservation, research and welfare communities (including marine mammal stranding networks and research scientists). More specifically, these Guidelines provide key information to, and standardize activities of, marine mammal responders to build and maintain oiled wildlife readiness at a national level, including:<br>•Outlining organizational and reporting structures/instructions so that wildlife professionals can effectively integrate and contribute to the oil spill response framework;<br>•Establishing standardized data collection techniques to support effective response activities (as well as subsequent natural resource damage assessment);<br>•Defining chain-of-custody protocols for animal collection, necropsy and sampling to help ensure integrity of samples and results, as well as their admissibility in any legal proceedings;<br>•Instituting training requirements or the protection of human and animal health during oil spill response; and<br>•Promoting the best achievable care for oiled marine mammals, including necessary readiness activities (e.g., training, equipment). |
| 141 | USCG | Public Information Assist Team (PIAT) | Link | PIAT is an element of the NSFCC staff available to assist the FOSC to meet the demands for public information during a response or exercise. Its use is encouraged any time the FOSC requires outside public affairs support. Requests for PIAT assistance may be made through the NSFCC or NRC. |
| 142 | BSEE | Recovery System Evaluation Tool (ReSET) | Link | Bureau of Safety and Environmental Enforcement (BSEE) Recovery System Evaluation Tool (ReSET)<br>The ReSET is intended to assist recovery system users in estimating the potential of oil recovery system configurations to best recover floating oil. This tool is NOT intended to be used as a model for calculating system performance during an actual oil spill, which is affected by many factors such as the distribution of oil on the water surface, oil weathering, and other ambient on-scene conditions which are not included in this tool. |
| 143 | RRT-4 | Region 4 Regional Contingency Plan (RCP) / Area Contingency Plan (ACP) Tools | Link | The Region 4 Regional Response Team (RRT) is comprised of members from state, tribal and federal agencies committed to working efficiently to minimize the adverse effects of oil and chemical incidents that affect safety, human health and the environment. |
| 144 | RRT-4 | Regional Response Team 4 (RRT-4) | Link | The functional role of RRTs in each federal region has two principal components. One component is the standing team whose duties involve communications systems and procedures, planning, coordination, training, evaluation, preparedness, and related matters within each RRT's respective region. The second component of the RRT is an incident-specific team that may be assembled, as determined by the operational requirements of a response to a specific discharge or release. |
| 145 | USCG | Response Resource Inventory (RRI) database | Link | As part of maintaining their classification, OSROs must provide detailed lists of their response resources to the Response Resource Inventory (RRI) database. The National Strike Force Coordination Center (NSFCC) administers this database, along with the OSRO classification program. The RRI database is the backbone of the classification program and requires administrative privileges to access. Please use the attached link to contact the NSFCC to request these privileges. |
| 146 | USCG | Response Resource Inventory System (RRI) User * | Link | The RRI is the backbone of the classification system and its capabilities are two-fold: an inventory element and a classification element. The inventory element provides Federal On- Scene Coordinators (FOSCs) and contingency planners the ability to query available spill response equipment and its proximity to Coast Guard Captain of the Port (COTP) zones. The classification element, largely considered an incentive for OSROs to enter their inventories into the RRI, complements Facility Response Plan (FRP) and Vessel Response Plan (VRP) development and review processes by systematically classifying OSRO response capability up to the response capability caps. |
| 147 | RRT-4 | RRT-4 State Emergency Operations Plans | Link | This site contains the Emergency Operations Plans for the states of Alabama, Florida Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee |

# Planning and Response Tools

| No. | Source | Topic | Hyperlinks | Description<br>Note: After sorting, select all (triangle at left top of screen) Home Tab>Cells>Format "AutoFit Row Height". |
|---|---|---|---|---|
| 148 | RRT-4 | RRT-4 Web Resources | Link | Contains Web Resources including National Response Framework, Region 4 Emergency and Removal Sites, Oil Spills Prevention and Preparedness Regulations, WebEOC Login, Forms and Boilerplate Documents, and The U. S. National Response Team. Also contains U.S. Coast Guard ACPs for North Carolina, Charleston, MSU Savannah, Jacksonville, Miami, Key West, St. Petersburg, and Mobile. |
| 149 | RRT-4 | RRT-4 In-Situ Burn Policy | Link | This document represents the Regional Response Team 4 (RRT-4) in-situ burn policy and describes the process to request authorization to use burning agents in conjunction with the in-situ burn (ISB) technique. Also provided are protocols and best practices for conducting ISB operations. This policy document outlines the burning agent approval process for those areas of the Region 6 coastal zone extending out to 3 miles offshore. |
| 150 | RRT-4 | RRT-4 Solidifier Use Plan | Link | This describes the Regional Response Team 4 (RRT-4) solidifier use plan, pre-authorization use for Tennessee and South Carolina. 2007 RRT - 4 Policy on Solidifier Use, and Ballast Water Treatment. |
| 151 | RRT-4 | RRT-4 Shoreline Cleansers and Surface Washing Agents | Link | Shoreline Cleansers and Surface Washing Agents (SWAs) are chemicals that are used to enhance oil removal from beach substrates and hard surfaces. They generally reduce the interfacial tension between the liquid oil and the surface the oil has adhered to. This policy document outlines various components of the SWA approval process, including preauthorization, and details best practices and lessons learned from those SWA operations conducted within Region 6 since 2003. |
| 152 | NOAA | Special Monitoring of Applied Technologies (SMART) | Link | Special Monitoring of Applied Response Technologies (SMART) is a cooperatively (USCG, NOAA, EPA, CDC, & BSEE) designed monitoring program for in situ burning and dispersants. SMART relies on small, highly mobile teams that collect real-time data using portable, rugged, and easy-to-use instruments during dispersant and in situ burning operations.<br>Data are channeled to the Unified Command (representatives of the responsible party and the state and federal governments who are in charge of the spill response) to address critical questions:<br>•Are particulates' concentration trends at sensitive locations exceeding the level of concern?<br>•Are dispersants effective in dispersing the oil?<br>Having monitoring data can assist the Unified Command with decision-making for dispersant and in situ burning operations. |
| 153 | NRT | Spill of National Significance (SONS) Public Affairs Reference (SPAR) | Link | Developed by the Spill of National Significance (SONS) Communications Coordination Workgroup, the SPAR provides Public Information Officers (PIOs) with a compilation of background materials, considerations, references, and agencies with the applicable subject matter experts on topics that are frequently asked about during oil spill responses. Topics include authorities, roles and responsibilities, source characteristics, response operations, human health impacts, environmental impacts, economic impacts, and remediation and restoration. The SPAR serves as a starting point for developing fact-based, robust responses to major media topics of interest and a resource to help educate new PIOs in answering questions regarding oil spill responses. |

# Florida Keys
# Area Contingency Plan
# (FKACP)

## Risk Analysis: Area Planning Scenarios

# Annex B

May 2022

## Record of Changes

| Change Number | Change Description | Section Number | Change Date | Name |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
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# Table of Contents

# 1000 Introduction

This annex has been developed by the Federal On-Scene Coordinator (FOSC), in consultation with the Florida Keys Area Committee, and is based on an assessment of all potential sources of discharges in this area meeting the provisions of 40 CFR Part 300.210(c) of the National Contingency Plan. At a minimum, this will address the following area planning elements:

- Oil spill discharge and hazardous substance release history;
- A risk assessment of potential sources of discharges within the area;
- A realistic assessment of the nature and size of possible threats and resources at risk;
- Planning scenarios that provide for a Worst Case Discharge (WCD), a Maximum Most Probable Discharge (MMPD), and an Average Most Probable Discharge (AMPD) from a vessel, offshore facility (outer continental shelf activity and near shore production fields), or onshore facility (fixed and mobile) in the area, as applicable.

# 2000 Scenario Development

As required by the Oil Pollution Act of 1990, a most probable discharge, a maximum most probable discharge, and a worst case discharge are presented in this annex of the Florida Keys Area Contingency Plan. In addition, The Coast Guard requires an offshore WCD scenario be included in area contingency plans where offshore continental shelf activity is present. The below definitions can be found in 33 CFR Parts 154 and 155, and 40 CFR Part 300.5, as appropriate.

## 2100 Average Most Probable Discharge

The Coast Guard has determined Average Most Probable Discharge as the lesser of 50 barrels or 1% of a Worst Case Discharge for an offshore or onshore facility/pipeline/marine terminal, or the lesser of 50 barrels or 1% of cargo from a Tank Vessel during cargo transfer operations. This value was adopted for consistency with Federal Vessel and Facility Contingency Plans.

## 2200 Maximum Most Probable Discharge

The Coast Guard has defined Maximum Most Probable Discharge as the lesser of 1,200 barrels or 10% of the volume of a Worst Case Discharge for an offshore facility or onshore facility/pipeline/marine terminal; 2,500 barrels of oil for a vessel with an oil cargo capacity equal to or greater than 25,000 barrels; or 10% of the vessel's oil cargo capacity for vessels with a capacity less than 25,000 barrels for Tank Vessels. These values were adopted for consistency with Federal Vessel and Facility Contingency Plans.

## 2300 Worst Case Discharge

As defined by section 311(a) (24) of the Clean Water Act, the definition of a Worst Case Discharge in the case of a vessel is a discharge in adverse weather conditions of its entire cargo, and in the case of an offshore facility or onshore facility/pipeline/marine facility, the

largest foreseeable discharge in adverse weather conditions. This definition has been adopted for consistency with Federal Vessel and Facility Contingency Plans.

# 3000 Discharge and Release History

The next section provides an account of WCDs that occurred in the area, including substantial oil spills or hazardous substance releases that caused elements of this plan to be implemented.

## 3100 Record of Worst Case Discharges

| Date | Location | Source* | Product | Amount (Gal) |
|---|---|---|---|---|
| 25 JUN 91 | MOLASSES REEF, POTENTIAL | V | JET FUEL | 1,344,000 |
| 30 OCT 89 | DRY TORTUGAS, POTENTIAL | UNK | #6 FUEL OIL | 120,000/23000 |
| 01 APR 19 | 60NM FROM KEY WEST, POTENTIAL | V | BUNKER C | 53,000 |
| 31 AUG 21 | STOCK ISLAND, POTENTIAL | ONF | DIESEL | >50,000 |
| 28 MAR 91 | KEY LARGO | UNK | #6 FUEL OIL | 7000 |
| 18 JUN 93 | SOUTH OF KEY WEST | UNK | DIESEL/LUBE OIL | 6000/150 |
| 19 DEC 88 | DRY TORTUGAS, POTENTIAL | UNK | DIESEL | 6000 |
| 23 APR 92 | MOLASSES REEF, POTENTIAL | UNK | DIESEL | 3000 |
| 13 MAR 93 | SE OF KEY WEST, POTENTIAL | UNK | DIESEL | 3000 |
| 19 AUG 93 | BOCA CHICA, POTENTIAL | UNK | JP-5 | 999 |

***V = Vessel, **OSF = Offshore Facility, ONF = Onshore Facility P = Pipeline**

******Means any structure, group of structures, equipment, or device (other than a vessel) which is used for one or more of the following purposes: Exploring for, drilling for, producing, storing, handling, transferring, processing, or transporting oil. The term excludes deep-water ports and their associated pipelines defined by the Deepwater Port Act of 1974, but include other pipelines used for one or more of these purposes. A mobile offshore drilling unit (MODU) is classified as a facility when engaged in drilling or downhole operation

# 4000 Risk Assessment

The Florida Keys is the most environmentally sensitive portion of South Florida. This area hosts numerous important resources, such as living coral reefs, mangroves, turtle and crocodile nesting areas, and many bird nesting areas. Identify resources at risk, prioritization of sensitive areas, and request necessary resources to conduct an efficient response. The greatest risk is the potential for damage to the coral reefs, sea-grass ecosystems, mangroves, and coastal vegetation found in the area. Secondary importance is the loss of public use (and subsequent revenue) of the numerous beaches and parks located in the Keys. The sensitive areas are mapped out in detail in the Environmental Sensitivity Indices (ESI) and Geographic Response Plans (GRP) (Volume III).

Seasonal Considerations: This scenario could occur during any time of the year. The most severe weather threat is experienced from June through November, the traditional hurricane season, but on average, the winds and seas are strongest during the late fall and winter months of October through March. Sea turtles nest from March through October, with the greatest risk from May through September.

Vessel Traffic Considerations: The Southern Straits of Florida is a major maritime traffic route, and averages approximately 2,000 to 2,500 commercial vessel transits per month. In the event of a catastrophic pollution incident, mariners should be notified of the potential threat, and traffic routing modifications should be considered to minimize potential hazards and limit the possibility of contaminating additional vessels with pollution.

## 4100 Possible Sources of WCD

In the Florida Keys FOSC Zone, there are numerous scenarios that may cause a WCD: groundings, collisions, equipment failure, natural disaster, or offshore facility incidents. Recreation-tourism makes up the largest industry in the keys which contributes to a high likelihood of groundings, collisions, and equipment failure on inspected and recreational vessels.

### 4101 Offshore Facilities

A significant oil spill resulting from an anticipated increase in the exploration activities for offshore oil and gas resources in the territorial seas of other nations adjacent to the United States is a plausible source in today's local industry. Trajectory modeling has indicated that a spill originating from these sites has the potential to impact US waters and shoreline areas depending on the amount and duration of the spill. If a WCD were released from a number of these sites, the trajectory modeling suggests that the oil could reach US waters within 2-3 days and have potential shoreline impacts within 5-7 days. However, oil characteristics and environmental conditions may significantly impact the trajectory of a spill. Therefore, these numbers are only intended for planning purposes.

A number of neighboring countries have, or will shortly, initiate plans to conduct drilling operations that due to their close proximity to the US coastline, will likely present an environmental threat to the US Exclusive Economic Zone (EEZ), Territorial Seas, Coastal and Inland waterways and shorelines. The impacts from a WCD scenario in one of these neighboring country's territorial seas would likely result in a Spill of National Significance (SONS) and would significantly impact the Sector Key West Captain of the Port Zone (COTP).

### 4102 Onshore Facilities/Pipelines/Marine Terminals

Three facilities in the Key AOR are required to have Facility Response Plans (FRP) due to the quantity of oil transferred and/or stored onsite. A copy of the Facility Response Plans for each facility is maintained by Sector Key West. A potential exists for a spill to occur during offloading, storage, and transfer of product at each of these facilities. Potential spills are described in each facility FRP in terms of the average most probable, maximum most probable and worst case discharges. The primary petroleum products being transferred/stored at these facilities include: JP-5, No 2 fuel oil, diesel fuel, gasoline, lube oil and mineral oil. The largest concern from a release occurring on the highway system is from an accident involving a tanker carrying gasoline and/or diesel fuel. Numerous tankers carrying these products transit the Keys

on a daily basis as there are no terminal facilities for the storage of vehicular fuels located in the Keys. An accident on US 1 on one of the numerous bridges running from Key Largo to Key West could result in a significant discharge of petroleum products into the very sensitive marine ecosystem.

### 4103 Vessel Traffic

Two facilities in the Key West AOR are capable of receiving fuel by vessel. Both facilities conduct transfer operations within either a slip or a confined area. Additionally the vessels are boomed-off and are under continuous surveillance during unloading operations. These actions limit the potential risk of a spill escaping the containment areas.

## 4200 Vulnerability Analysis

The following infrastructure and natural resources could be vulnerable from the effects of a major oil spill in the area:

- Water intakes (drinking, cooling, or other)
- Businesses
- Residential areas
- Wetlands and other sensitive environments
- Fish and Wildlife
- Endangered flora and fauna
- Recreational areas
- Marine transportation system
- Utilities
- Unique habitats or historical sites
- The Geographic Response Strategies detail tactics used to protect, recover, and mitigate the effects of a WCD.

## 4300 Planning Assumptions

The following assumptions are made for the WCD planning scenarios:

- The ability to respond to a WCD will be beyond the ability of the Florida Keys Area Committee, the Local Community, and local spill response resources.
- A Unified Command will be established as soon as possible.
- Responders will be adequately trained in oil/hazardous substance response and will operate within the level of their training, expertise, and capabilities as described in 29 CFR Part 1910.120.
- The applicable Facility/Vessel/Pipeline/Offshore response plan will be implemented.
- A WCD scenario will draw major media and governmental interest.

## 4400 Meteorological Conditions

Due to the nearness of the Gulf Stream in the Straits of Florida, and the tempering effects of the Gulf of Mexico, the Florida Keys have a notably mild, tropical-maritime climate.

Diurnal temperature variations throughout the year range about 10 degrees. Winter cold fronts tend to be modified by the warm water as they move in from the north, keeping monthly average temperatures typically only 15 degrees lower in the winter than during the summer. There is still no record of frost, ice, sleet, or snow in Key West, but ice has been reported in the Upper Keys.

December through April, referred to as the dry season, receives just shy of 25 percent of the annual rainfall, usually ahead of cold fronts. June through October is considered the wet season, receiving approximately 65 percent of the yearly total in showers and thunderstorms. May and November are typically seen as transition months between seasons. Easterly waves during this season occasionally bring excessive rainfall, while infrequent hurricanes may be accompanied by unusually heavy amounts.

Tropical cyclones (hurricanes and tropical storms) are severe but infrequent, with the season extending from June 1 through November 30. Extra-tropical cyclones (low-pressure systems) occur frequently during winter and spring and are likely to produce occasional rough conditions in the area during this time. More specifically, 9 of 12 tropical storms to hit the Florida Keys occurred from mid-August to early October. This data corresponds closely to tropical cyclone activity across the entire Atlantic Basin, which peaks in early September.

## 4500 Planning Scenarios

Given the applicable conditions described above, the WCD, MMPD, and AMPD volumes from all potential sources is calculated and listed in the table below. The MMPD and the AMPD scenario volume is calculated based on a fixed number established for an offshore facility, an onshore facility/pipeline/marine terminal, or a percentage of the WCD rate from each potential source. For tank and non-tank vessels, the MMPD and the AMPD scenario volume is calculated based on a fixed number, a percentage of the cargo capacity, or the cargo transfer rate.

Therefore, the MMPD and the AMPD spill volumes from an offshore facility or onshore facility/pipeline/marine terminal is calculated as:

- 1,200 barrels or 10% of the WCD volume when calculating the MMPD.
- 50 barrels of 1% of the WCD volume when calculating the AMPD.

The MMPD and the AMPD spill volume from a tank/non-tank vessel is calculated as:

- 2500 barrels with a cargo capacity greater than or equal to 25,000 barrels, or 10% of the cargo capacity when calculating the MMPD.
- The lesser of 50 barrels or 1% of cargo from the vessel during cargo transfer operations when calculating the AMPD.

## 5000 Nearshore WCD Scenario

The worst case discharge scenario is the loss of propulsion of a fully loaded tankship 15 miles south of Big Pine in the Florida Straits, in adverse weather conditions. The tankship deploys anchor, which drags, bringing the vessel toward the reef line due to high winds. As the hull makes contact with the reef, additional vessel movement breaches a tank amidships.

The Sector Response duty officer is notified at 0215 May 25, 2022 that a tankship transporting crude oil from Mexico to Philadelphia has lost propulsion and has run aground. The position of the vessel is approximately 7 NM south of Big Pine Key near Looe Key at latitude -81.397, longitude 24.549.

By 0225, the duty officer notifies the Commanding Officer and Executive Officer, recalls the duty section, and instructs the OPCEN to immediately call in all available Sector personnel, notify District 7 Command Center and Sector Miami for assistance and inform NOAA National Marine Sanctuary, FWCC, DEP, State Warning Point, City of Key West fire/police departments and Monroe County (Emergency Management, Police, Fire Rescue) of the incident. The FOSC also, requests immediate assistance from the Gulf Strike Team.

It will take the Sector personnel about two hours to get the Station Key West 47 on-scene to evaluate the situation due to rough weather. The duty officer should consider the following initial actions.

- Immediately dispatch CG and Navy Helos from Naval Air Station Boca Chica for SAR and to conduct initial assessment.
- Request Station Key West dispatch the 47 to provide timely evaluation of the situation.
- Inform the Seventh Coast Guard District Command Center and Response duty officer of the marine casualty. Secure a Federal Project Number from the MEP duty officer. Request additional helos from Air Station Miami and response personnel from Sector Miami to assist with the response. Divert two underway 110 foot cutters for SAR and one 270 foot cutter to serve as On-scene Commander.
- Contact BOA oil spill contractors and NRC & MSRC and alert them of the possible need for response.
- Contact ships agent.
- Alert local hospitals about potential casualties.

The initial report received at 0300 from the CG Helo On-scene, is that the tankship is severly listing to port and actively discharging oil. The tanker crew has abandoned ship are in life boats. No severe injuries have been reported so far.

The grounding has resulted in the sudden release of 50,000 barrels or 2,100,000 gallons of South American crude destined for U. S. Refineries. Release would be instantaneous, occurring within one hour of running aground.

The total potential discharge is 300,000 barrels or 12,600,000 gallons. The wind is from the east at approximately 30 MPH with visibility reduced during squalls to less than 1/2 mile. Seas are five (5) feet outside the reef, two (2) feet inside. Air and water temperatures are 75 and 80 degrees F, respectively.

- Historical spill considerations: From July 1, 1988 through June 30, 1993 there were three reported potential spills involving multi-million gallon cargoes within the Sector Key zone. No medium or major spills have occurred in the Keys areas in recent history although this is an area of frequent groundings. The frequency of groundings combined with the nearshore shipping lanes of tank vessels make this scenario a real possibility.
- Hazard assessment: MSDS information for crude oil will be used. This information should be used to assist in the development of the site safety plan.
- Vulnerability analysis: The Florida Keys is the most environmentally sensitive area of south Florida. This area hosts numerous important resources such as living coral reefs, mangroves, turtle and crocodile nesting areas, and many bird nesting areas.
- Risk assessment: Oil discharged south of the reef line, which extends from Key West to Key Largo, would be pushed north towards the islands by wind action and eastward by the offshore parallel currents. Oil impacting the shoreline is inevitable.
- Seasonal considerations: This scenario can occur during all times of the year. The most severe weather threat is experienced from June through November, the traditional hurricane season, but on average, the winds and seas are strongest during the late fall and winter months of October through March. Sea turtles nest from March through October with the greatest risk from May through September.

The following decisions will have to be made at this time:

- Should the FOSC consider the use of dispersants and in-situ burning?
- Can boom and/or dispersant equipment be obtained and deployed prior to the oil getting too close to shore?
- Does the on scene weather conditions permit burning, i.e. winds less that 20 MPH, waves 4 feet or less? Due to the varying current directions, the requested trajectory may prove to be unreliable and should be supplemented with on scene observations by the Investigative Team.
- What additional resources are needed (MSRC, NRC, Gulf Strike Team etc.) and how many oil spill cleanup contractors will be needed to handle the cleanup?
- Where to stage response equipment.
- Where to set up the Incident Command Post for the response. Ensure State and vessel representatives are notified of the location.
- Can the discharge source be secured? Due to the extent of the damage and the crew abandoning ship, securing of the source would not be possible. No attempt would be made to deploy the pollution containment equipment required on board the vessel.
- What sensitive areas are at risk? The greatest risk is the potential for damage to the coral reefs, seagrass ecosystems, mangroves and coastal vegetation found in the area. Of

secondary importance is the loss of public use (and subsequent revenue) of the numerous beaches and parks located in the Keys. The sensitive areas are mapped out in detail in the Environmental Sensitivity maps contained in Volume II of the Plan.

## 5100 Initial Actions

The FOSC decides to initially establish the Incident Command Post at Sector Key West due to the need to have communications with Coast Guard cutters and aircraft. However, due to the size of the incident, the FOSC may consider moving the Incident Command Post to Hawks Cay Motel/Marina in Duck Key as the response organization expands to address the size of the incident. Hawk's Cay has adequate berthing, food and conference facilities and the Monroe County Emergency Operations Center in Marathon is too small to sustain this level of incident.
The Response & Prevention Sections report to the Sector and begin activating Contractors, updating all involved agencies and requesting the NOAA SSC to obtain a trajectory of the spill. Sector Search and Rescue Units are activated at Station's Key West and Marathon and underway cutters are diverted in response to the need for possible medivacs and person-in-water searches. The vessels should be on scene within 2 hours. They would also be asked to obtain a sample of several gallons of the oil and arrange for delivery to the Sector. Vessels are instructed to conduct fire-fighting operations if feasible.

- Initial on-scene investigation, evaluation and recommendations: The Investigation Team would attempt to determine the amount and direction of oil discharged, assess the general condition of the vessel and report back to the FOSC. They should make recommendations as to the immediate disposition of the tankship and to the feasibility of towing and/or anchoring it.

## 5200 Response Strategy, Equipment, and Resources

The initial response strategy is to conduct search and rescue operations, evaluate the stability of the vessel, limit the spread of oil, and determine the best methods to prevent the oil from reaching the shoreline. The initial actions would be to deploy equipment to designated staging areas in an effort to prevent oil from spreading north of U. S. 1 and into the more environmentally sensitive areas. This would be accomplished using boom and skimmers designed for shallow water operations. Simultaneously, procurement of fire boom would be initiated. Once on scene, it would be deployed in an effort to burn as much of the spilled oil as possible. Burning would not be conducted within 6 miles of the islands. An Incident Command Post would be set up at Sector Key West and possibly moved to Hawk's Cay Marina (Duck Key) north of Marathon as the response escalates in size and scope. The estimated amount of equipment necessary to contain the spill and to collect the oil is as follows:

- Boom: Approximately 386,000' of boom is required to prevent oil from entering north of the islands.
- Skimmers: 46 skimmers are required at a minimum. 75 percent of these must be capable of operating in water depths of less than 6 feet.
- Oil Spill Removal Vessels (OSRV's): 3 Vessels needed at a minimum: MSRC's Florida Responder (Miami), NRC's Sentential (Miami), and the Coast Guard's VOSS System (Port Everglades).
- Aircraft: minimum of 3 helicopters (one for pollution mapping over-flights, two for SAR) periodic use of fixed wing for video mapping. FAA assistance will be required to establish flight restrictions for the airspace surrounding the tankship.

- Oil storage vessels/tanks: 18 large tank barges will be required to support the deep water skimming operations and transport the recovered oil/water mixture to shore for disposal. Another 30 small tank barges will be required to support the shallow water skimming operations.
- Support vessels: 15 large tugs capable of towing the deep water skimming systems and shuttling barges to shore. Another 20 smaller tugs to support the shallow water skimming operations. About 200 small utility boats for tending skimmers, tending boom and other logistical support.

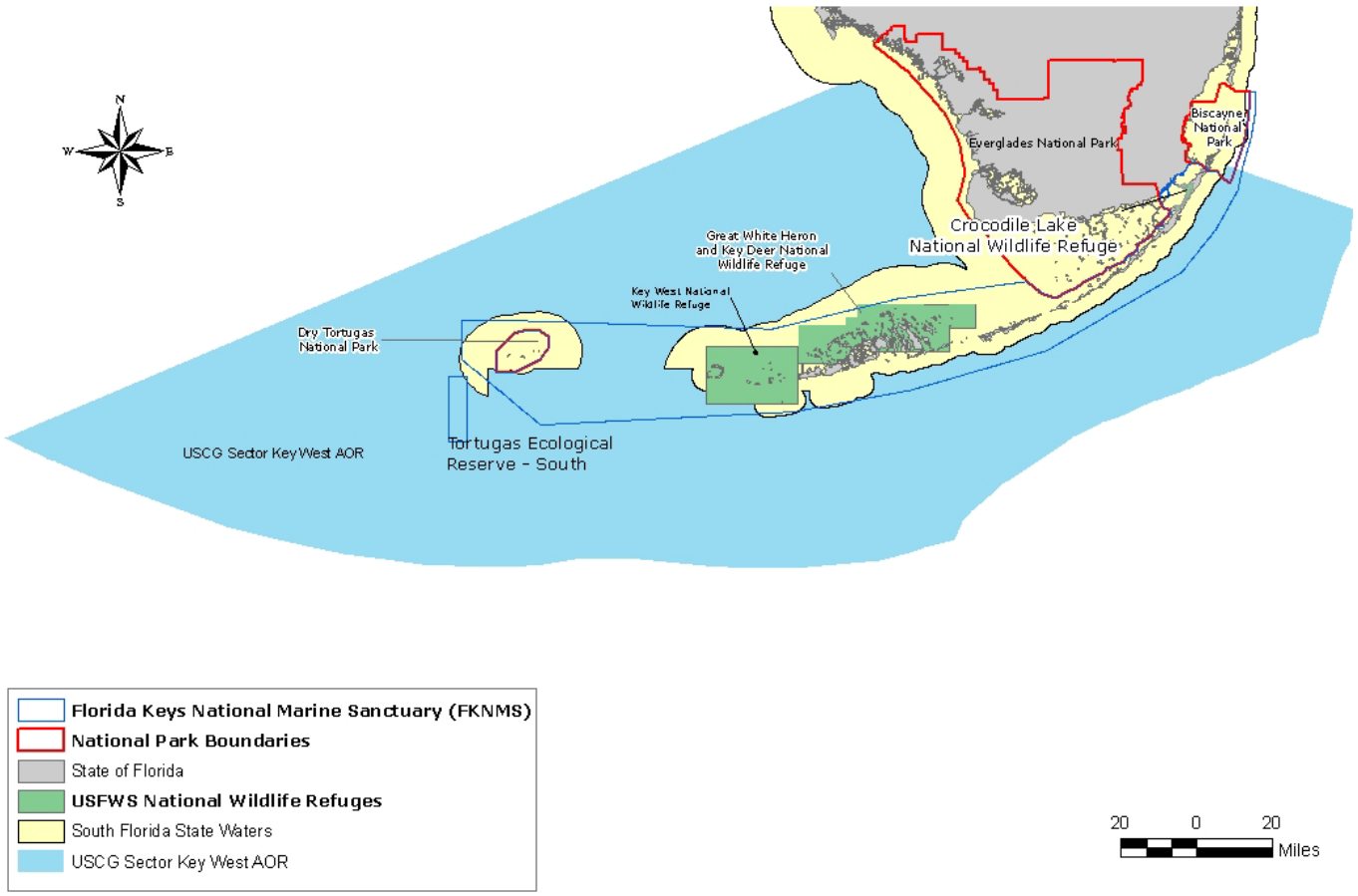
Who will provide primary response resources: In the initial response, the majority of the resources will be provided by private contractors hired by the FOSC. After contact is established with the tankship's operators, they may assume all, part or none of the clean up responsibility. Locally available equipment stockpiled by the various marinas and parks may also be used. The Vessel of Opportunity Skimming System (VOSS) and other larger skimmers will be provided by the Coast Guard and Navy Supervisor of Salvage (SUPSALV). The largest stock of fire boom is in Alaska (there is 1500 feet in Houston, TX; 750 feet being sent to the United Kingdom, 750 feet at the Clean Caribbean Cooperative in Fort Lauderdale). It is unknown what resources the responsible party will provide.

Procedures for acquiring additional resource assistance: The Logistics Section is tasked with locating and obtaining equipment as the needs are identified. Locating sources include using the corporate knowledge of the Coast Guard National Strike Force and the Contractors involved. Additional sources of equipment are identified in Section 9200 of the Plan.

Response time for all resources: The containment boom is scheduled to begin arriving in the Marathon area within 3 hours, initially from the local Coast Guard, State and contractor stockpiles. The rest of the identified 165,000' of boom and trained personnel and equipment needed to deploy the boom will arrive over the next 24 hours. Small portable skimmers and the large skimmers in MSRC's and NRC's Miami inventory will arrive on scene within 6 hours. The three OSRV's will begin arriving within 12 hours. The majority of the larger skimmers are located in Jacksonville and will begin arriving in the Keys in approximately 10 hours. National Strike Force and Navy SUPSALV assets will take up to 48 hours to reach the Keys. Contractor furnished equipment could take up to two hours to stage at Marathon and Big Pine Key areas. Additional resources outside the Keys would take a minimum of eight hours to arrive after they were called. Personnel from other Strike Teams would probably be available within 12 hours.

## 5300 Nearshore Operations Map

The Incident Commander will be responsible for nearshore operations, to include prioritization of potentially impacted areas, surface skimming, booming strategies, shoreline cleanup, and decontamination within Florida state waters and the Sector Key West area of responsibility. The general areas of these operations are depicted below.



# 5400 Nearshore and Shoreline Protection

If the spill went unabated, shoreline impact would depend upon existing environmental conditions. Nearshore response may include the deployment of shoreline boom on beach areas, or protection and sorbent boom on vegetated areas. Strategies would be based upon surveillance and real time trajectories provided by Shell contractors that depict areas of potential impact given actual sea and weather conditions. Strategies from the FKACP, The Response Group and UC would be consulted to ensure that environmental and special resources would be correctly identified and prioritized to ensure optimal protection. The Response Group shoreline response guides depict the protection response modes applicable for oil spill clean-up operations. Each response mode is schematically represented to show optimum deployment and operation of the equipment in areas of environmental concern. Supervisory personnel have the option to modify the deployment and operation of equipment allowing a more effective response to site-specific circumstances.

## 5401 Mechanical Cleanup Methods

Near shore mechanical recovery resources will be deployed to contain and collect oil prior to reaching the shoreline, minimizing the amount of oil that may impact the shoreline. In areas of shallow water, it may be possible to collect or corral the oil with ocean boom and take it to deeper water or low-current areas that have better skimmer access and higher recovery rates. Sorbent boom and snare boom may be utilized to recovery light sheens and more viscous oils.

Sorbent boom is designed primarily to absorb oil, although it can act as a protective measure against thin oil sheens under very quiet water conditions. Snare boom (pom-poms tied onto a line) is effective as a sorbent of more viscous oils under higher wave and current conditions. When used with conventional booms, sorbents can be placed outside of the boom to pick up escaping oil, or inside the boom to absorb contained oil.

## 5402 Shoreline Protection

The Response Group shoreline response guides depict the protection response modes applicable for oil spill clean-up operations. Each response mode is schematically represented to show optimum deployment and operation of the equipment in areas of environmental concern. Supervisory personnel have the option to modify the deployment and operation of equipment allowing a more effective response to site-specific circumstances. Booming strategies will be implemented to exclude oil from impacting priority resources, and may be diverted to collection areas for recovery. The following are various types of boom that may be deployed to protect the shoreline:

- **Near Shore Boom***:* When oil threatens impact shoreline or marshes, this medium size boom (~18”) can be deployed to deflect or contain oil, or prevent impact to sensitive areas.
- **Bottom-seal Boom***:* This boom is designed for deployment in very shallow water here traditional boom may foul on the bottom during low water levels. This boom’s special features allow it to conform to the substrate, so that it can continue to act as a barrier to oil during changing tides or lower water levels. Bottom seal boom uses ballast tubes that are filled with water and actually lay on the bottom to provide a seal against oil passage.

Shallow water boom is effective in higher-current areas because the shallow skirt minimizes the drag in the current.

- **Inland Boom***:* Inland boom is the smallest conventional boom and is designed for deployment in very shallow water; as the draft is only 6-12 inches. It is normally deployed in more protected waters where there is little to no wave action.

### 5403 Wildlife Support

If wildlife is threatened due to a spill, MSRC and CGA have resources available for Shell, which can be utilized to protect and/or rehabilitate wildlife. Wildlife support resources are identified in the Shoreline Protection & Wildlife Support status board.

## 6000 Offshore WCD Scenario

At 0400 on 12 April 2012, the Deepwater Neptune, an ultra-deepwater dynamically positioned, semi-submersible offshore oil drilling platform ("rig"), exploded in the Florida Straits for unknown reasons in adverse weather conditions. The offshore rig is fully engulfed in flames. The fire has spread to an area around the rig on the waters' surface. The crew is abandoning the rig. The free flowing crude oil is burning at the surface, in 4 to 6 foot seas. The Sector Key West Command Center is notified of the event at 0415 that an offshore drilling rig suddenly exploded in a position approximately 50 nautical miles south of Key West and positioned in the Florida Gulf Stream Current. The rig is fully engulfed in flames and has broken free of its well-head, leaving free-flowing crude oil to discharge into the Florida Straits. Several crewmembers are severely injured. A "MAYDAY" was issued prior to the crew abandoning the rig.

## 6100 Initial Actions

Coast Guard Sector Key West received the "MAYDAY" and tasked a USCG Patrol Boat to divert to the last reported position of the rig to investigate. The initial information passed to the patrol boat is that the rig experienced a catastrophic explosion after an uncontrolled fire ignited and has broken free from the well head with no way of stopping the discharge of oil from the well. When the patrol boat arrived on-scene and located the injured crew in lifeboats, the Master informed the patrol boat commanding officer that the last calculated rate of flow could be up to 75,000 barrels per day. Several of the rig's crewmembers are critically injured and require immediate treatment for any chance of survival. The patrol boat confirmed the rig was the Deepwater Neptune, located in the waters of Cuba's Exclusive Economic Zone. The patrol boat cannot stabilize the injured rig workers and has departed the scene with the rig's crewmembers onboard.

Upon notification and confirmation of a major offshore spill, Seventh Coast Guard District Commander will make a determination regarding the implementation of the International Offshore Drilling Response Plan (IODRP). This determination may be based on the size of the incident (major coastal spill or potential spill in accordance with 40 CFR 300), the vessel involved (offshore drilling platform), and location (within a foreign EEZ).

**PHASE 1 – INITIAL SECTOR RESPONSE.** The Sector with an area of responsibility (AOR) closest to the incident will initiate response operations based on the specifics of the reported incident. The initial USCG activities will include activation of the appropriate ACP as well as other USCG operational activities which may include Search and Rescue and/or other USCG missions. Ongoing USCG operations in the Sector AOR will be assessed to determine which operations may be impacted by the incident. Assets engaged in USCG missions may be re-tasked to support incident response operations. When the type of incident dictates, the Sector will stand up their Unified Command (UC).

**PHASE 2 – DISTRICT/SECTOR RESPONSE.** Once a decision to activate the IODRP is made, the initial elements of the Offshore Operations UC response organization will be activated and make preparations to begin operations. This phase could also include several more elements of the response organization standing up concurrently as other adjacent Sectors activate UC organizations and the UAC at the District is activated.

**PHASE 3 – SONS DECLARATION.** In accordance with the National Contingency Plan (40 CFR 300), a Coast Guard Area or District Commander may recommend to the Commandant, that a Spill of National Significance (SONS) be declared. The Commandant alone is empowered to declare a SONS in the coastal zone. Once the Commandant declares a SONS within the Atlantic Area AOR and designates COMLANTAREA, or another individual as the National Incident Commander (NIC), the Federal On-Scene Coordinator covered by the NIC will be notified.

## 6200 Response Strategy, Equipment, and Resources

The Offshore Response will be managed primarily by the Unified Area Commander and/or National Incident Commander. This response may include any or all of the following occurring beyond Florida state waters:

Source control operations are geared toward controlling the spill at its source, to include well-capping, firefighting, salvage, and other operations. Since this may occur in a foreign country's waters, these efforts may be led in coordination with the RE and/or foreign government. Offshore skimming is a form of mechanical recovery of surface oil. Due to the expected environmental conditions in the area and cased on lessons learned from the Deepwater Horizon response, the resources assigned to conduct offshore skimming will typically be larger oil spill response vessels (OSRV) which are designed for these conditions, have longer underway endurance, and temporary storage capacity.

Alternative response technologies include in-situ burning and surface/sub-surface application of chemical dispersants. All of these response techniques will be considered for use in compliance with National Response Team (NRT) and Regional Response Team (RRT) policy. Special Monitoring of Applied Response Technologies (SMART) protocol monitoring of alternative response technologies may be conducted to measure efficacy and/or monitor for health and safety dangers to the public or environment. Due to the sheer number of aircraft involved in a response of this size and the large geographic area in which they would operate, additional coordination and management will be necessary through the Unified Area Command. All vessels conducting offshore operations will need to be decontaminated on the water and with no impact to the highly sensitive Florida Keys National Marine Sanctuary.

Decontamination may be extended to the numerous non-response vessels that transit the area as part of the Marine Transportation System (MTS).

The U.S. Coast Guard maintains an inventory of verified Oil Spill Removal Organizations (OSRO) and their resources in an electronic database called the Response Resource Inventory (RRI). Based on current assessments of the RRI, there is a significant shortfall of organic response resources in the Key West Captain of the Port Zone. Any additional resources would need to be identified and requested immediately from outside of the area. Due to the time sensitive nature of moving these resources, OSROs are included in the initial notifications in order to begin verifying their current, real-time inventories against the existing RRI report. Additionally, a spill of the magnitude of a Worst Case Discharge scenario would most likely impact other Captain of the Port Zones, resulting in similar resource requests. Consequently, the Area Command or National Incident Command will prioritize critical response resources. Due to these limitations, a significant amount of additional resources may NOT be available for deployment in the Florida Keys.

Therefore, the prioritization of resources and personnel is essential, especially as shoreline protection strategies are developed. Annex AA of the FKACP, Shoreline Cleanup Methods, provides guidance on prioritization of these strategies. As the response expands and resources become available, the U.S. Coast Guard will develop Basic Ordering Agreements (BOA) with additional OSROs.

Sector Key West is not currently staffed with enough pollution response personnel for a large scale response. In order to augment the active duty and reserve forces, a robust Coast Guard Auxiliary pollution response program was developed. These Auxiliary members receive extensive training in HAZWOPER, oil spill response, and Incident Command System (ICS). Further force augmentation may be achieved through a volunteer program, as described in Section 5401 of the FKACP. The Area Committee has developed a volunteer management program that seeks to identify and train volunteers before a spill ever happens. This program is managed by Monroe County and the Coast Guard Auxiliary.

## 6300 Source Control/Subsea Containment

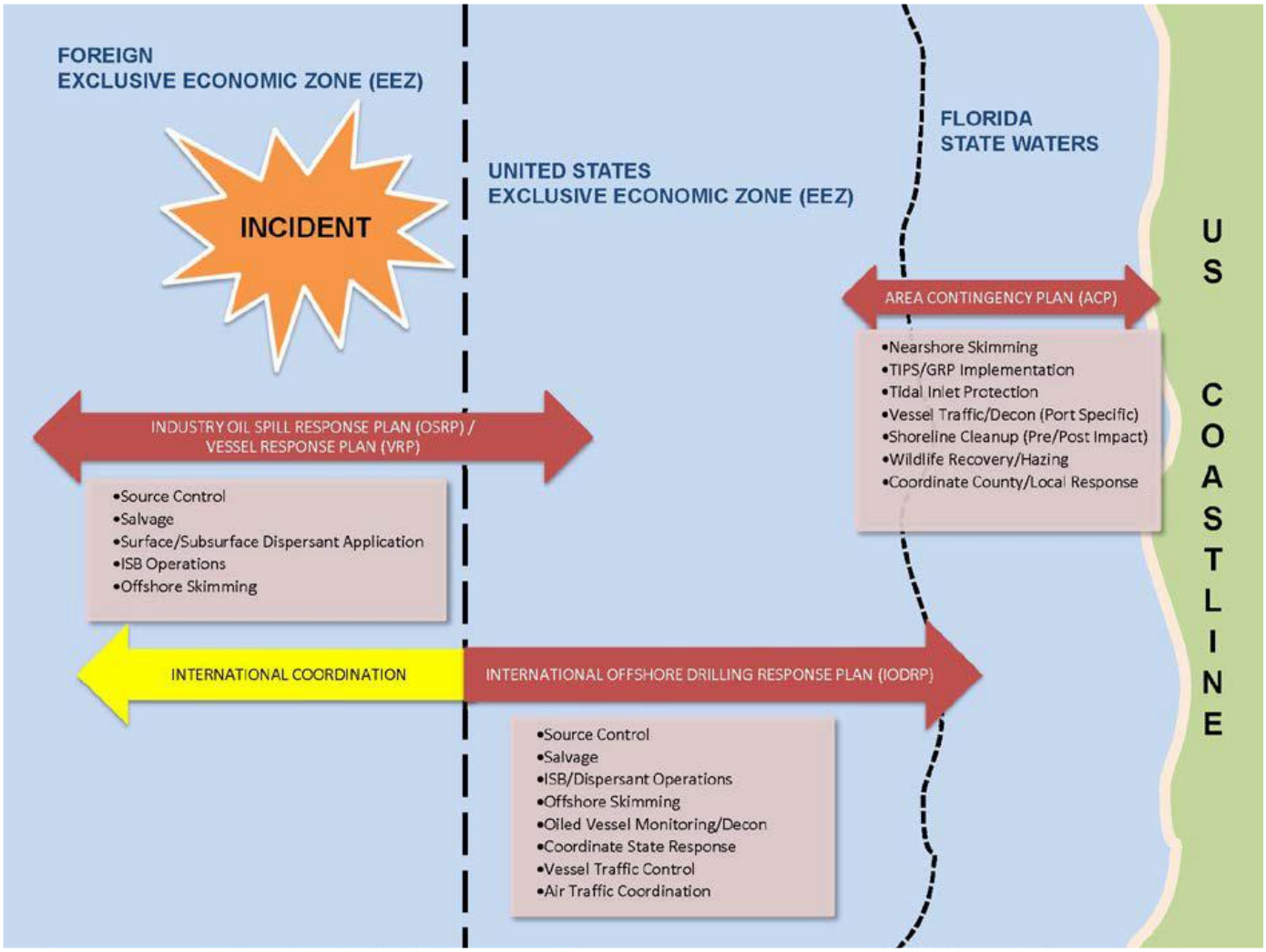
The first source control response in a subsurface well blowout would be to activate the blowout preventers and close the well. Wild Well Control and Marine Well Containment Company (MWCC) would be notified in the event of a blowout. The first step is to determine if the blowout well can be capped and secured by bull-heading or circulating down existing tubulars. A pre-emptive relief well planning team would immediately be formed. The relief well team would locate and secure the appropriate rig(s) to conduct relief well operations, if needed. If the well cannot be capped, the relief well(s) operations would start as soon as possible. If the well can be capped but not secured, then using a snubbing or coil tubing unit for a circulating kill, drilling a relief well, or starting both operations simultaneously may be the next response options. Subsea containment resources would be mobilized in the event of an uncontrolled well blowout. Subsea containment incorporates simultaneous operations to cap or contain the flow of oil within the well, contain the oil outside of the well and collect at surface facilities or vessels and chemically disperse the oil at the well head. Refer to the Control and Containment status board for resources and response times.

## 6400 Additional Support for a blowout lasting 120 days:

- Ocean Barge to transport recovered oil from offshore skimming systems and temporary storage barges to onshore disposal sites (identified in Area Contingency Plans and approved by the State)
- Additional OSRO personnel to relieve equipment operators
- Vessels for supporting offshore operations
- Field safety personnel
- Continued surveillance and monitoring of oil movement
- Helicopter, video cameras
- Infrared (night time spill tracking) capabilities
- Logistics needed to support equipment:
    - Parts, trailers, and mechanics to maintain skimmers and boom
    - Staging areas
    - Fueling facilities
    - Decontamination stations
    - Dispersant stockpile transported from Houston to Houma
    - Communications equipment and technicians
- Logistics needed to support responder personnel:
    - Food
    - Berthing
    - Additional clothing/PPE/safety supplies
    - Decontamination stations
    - Medical aid stations
    - Safety personnel

## 6500 Offshore WCD Map

The map below depicts the relationship of various plans across geographic areas of responsibility and authorities during a Worst Case Discharge response.



# Florida Keys
# Area Contingency Plan
# (FKACP)

# Florida Keys Fish & Wildlife Annex

## Annex C

## March 2025

# Record of Changes

| Change Number | Change Description | Section Number | Change Date | Name |
|---|---|---|---|---|
| 1 | | | | |
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# 1000 Fish and Wildlife and Sensitive Environments Plan (FWSEP)

## 1000 Purpose

The National Contingency Plan (NCP) directs that Area Committees (ACs) incorporate an annex into their Area Contingency Plans (ACPs) which contains a Fish and Wildlife and Sensitive Environments Plan (FWSEP). The contents of this plan are designed to facilitate the coordinated and effective protection of fish and wildlife resources, their habitats, and other environmentally sensitive areas found within an AC's planning area.

## 2000 Scope

In order to meet the provisions and requirements outlined by the NCP, this Fish and Wildlife and Sensitive Environments Plan will:

- Enable the identification and prioritization of resources at risk within the Florida Keys planning area and outline the notification and consultation procedures with those resources' trustees and managers;
- Provide a mechanism during a spill which allows responders to establish protection priorities of resources at risk, evaluate and prioritize removal actions and/or countermeasure use, determine any environmental effects those removal actions and/or countermeasures may cause and identify ways to minimize them;
- Provide monitoring plans to evaluate response effectiveness in protecting the environment;
- Identify the guidance, capabilities, resources, and agency representatives needed to coordinate the protection, rescue, and rehabilitation of fish and wildlife;
- Identify the guidance, capabilities, resources, and agency representatives needed to protect historic sites and sensitive environments; and
- Evaluate its interface with Non-Federal Response Plans on issues affecting fish and wildlife, their habitat, and sensitive environments.

For more information, please refer to the following Region 4 RCP annexes:

- Annex G: Sensitive Environmental and Economic Areas
- Annex H: Natural Resource Trustees
- Annex I: RCP/ACP Federal Permits Summary Table

Additionally, applicable to FL waters, the Florida's Wildlife Contingency Plan for Oil Spill Response | FWC (myfwc.com) is an excellent source of FWSEP information developed jointly by the USCG, FWC, USFWS, Florida DEP, and NOAA for the RRT-4 RCP.

## 3000 Environmental Consultation Requirements

There are three environmental consultation categories:

- Pre-spill consultation: This is required for an Action Agency (USCG within the coastal zone) to engage the Services (USFWS and NMFS) on the potential affects for *all* potential response actions that may be implemented during the emergency response.
- Emergency consultation: Whenever an FOSC makes a determination that federal response actions may affect ESA-listed (threatened or endangered) species and/or designated Critical Habitat or may adversely affect EFH, the action agency (USCG within the coastal zone) shall initiate emergency consultation protocols as appropriate. The FOSC initiates this emergency consultation as soon as practicable, via email to the USFWS and NMFS, after the response is initiated. This is facilitated by the NOAA SSC and DOI REO
- Post-response consultation: For actions not covered by a pre-spill consultation that are used, or are considered for use during an emergency response, the FOSC must follow ESA and/or EFH emergency response procedures and complete ESA and/or EFH consultations in collaboration with the Services once the emergency phase of the response has ended.

Additionally, the following appendices are also applicable to Endangered Species Act (ESA), Essential Fish Habitat (EFH), and National Historic Preservation Act (NHPA) mandates:

- Florida's Wildlife Contingency Plan for Oil Response, Oct 2012 Plan
- Marine Animal Facilities Plan, FKACP
- Sensitive Environmental and Economic Areas, RRT-4 RCP Annex G
- Natural Resource Trustees, RRT-4 RCP Annex H
- **Biological Opinion for the Preauthorized Use of Dispersant & In-Situ Burn Operations**

- **Solidifiers USFWS from 2006, Annex J: Oil Spill Countermeasures (p.396)**
- **Solidifiers MNFS from 2006, Annex J: Oil Spill Countermeasures (p.402)**

# Florida Keys
# Area Contingency Plan
# (FKACP)

## Hazardous Substance Response

# Annex D

May 2022

## Record of Changes

| Change Number | Change Description | Section Number | Change Date | Name |
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| 1 | | | | |
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# Table of Contents

# 1000 Introduction

While the basic Incident Command System/Unified Command (ICS/UC) is unchanged whether the response is to an oil discharge or hazardous substance release, including a Weapons of Mass Destruction (WMD) incident, there are a number of factors that are unique to hazardous substance releases. The purpose of this annex is to provide FKACP users with information specific to responses to hazardous substance releases, including WMD incidents.

Many FKAC member agencies have specific responsibilities during and following a hazardous substance incident, including a WMD or other terrorist act (chemical, biological, or radiological). The FKACP is a good general guide for interagency coordination and resources during a response to any type of oil or hazardous substance incident.

## 1100 Scope

This annex will focus on hazardous substance incidents with the following characteristics:

- Multi-agency and/or multi-jurisdictional response,
- Exceeds localized (town/city/parish/state) response capacity,
- Response exceeds one operational period,
- Release or imminent release of hazardous substances, and
- Response phase of the incident, through stabilization.

## 1200 Definition of Hazardous Substances

Before the process of planning for a hazardous substance incident response can begin, there has to be a clear understanding of the types of materials that are to be covered under this annex. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendment and Reauthorization Act (SARA) of 1986 defines hazardous substances as "hazardous waste" under the Resource Conservation and Recovery Act (RCRA), as well as hazardous substances regulated under the Clean Air Act, Clean Water Act, and the Toxic Substance Control Act. In addition, any element, compound, mixture, solution, or substance may also be specifically designated as a "hazardous substance" under CERCLA. This definition includes numerous hazardous chemicals as well as chemical warfare agents and radionuclides. CERCLA hazardous substances and associated Reportable Quantities (RQs) are listed in 40 CFR Part 302.4. CERCLA also applies to "pollutants or contaminants" that may present an imminent or substantial danger to public health or welfare. An imminent or substantial danger to public health or welfare is caused when the pollutant or contaminant will or may reasonably be anticipated to cause illness, death, or deformation in any organism. Most biological warfare agents have been determined to be pollutants or contaminants under CERCLA.

Petroleum products are specifically excluded from CERCLA and are not considered to be "hazardous substances" under Federal statute. State environmental statutes may, however, consider these materials hazardous substances. This annex does not specifically deal with issues related to response to petroleum products.

# 1300 Authorities

## 1301 Federal

Federal authorities for response to hazardous substance, pollutant, or contaminant; including biological, chemical, and radiological warfare agent releases are outlined in CERCLA (42 U.S.C. 9604) and the NCP, 40 CFR Part 300. FOSCs are the federal officials predesignated by EPA and the USCG to coordinate response activities. The FOSC directs response efforts and coordinate all other response efforts at the scene of a release. As the state and local responder's gateway to the resources of the National Response System, it is the FOSC's responsibility to provide access to resources and technical assistance that may not be otherwise available to a community.

Similar to oil spills, federal response authorities are shared by the EPA and the USCG, with the EPA maintaining jurisdiction of hazardous substance releases in the inland zone and the USCG in the coastal zone. The EPA also has the lead for longer-term hazardous substance and pollutant or contaminant cleanups in the coastal zone. Responsibility for radiological responses are more complex and are dependent on the source of the release. Roles and responsibilities are outlined in the Nuclear/Radiological Annex to the National Response Framework.

## 1302 Florida State

The State Warning Point is the State of Florida's emergency notification center. The State Warning Point can contact the appropriate FDEP office and other emergency responders in the event of an emergency. The phone number is (850) 815-4001 or 1-800-320-0519.

The State Emergency Response Commission (SERC) is responsible for implementing the federal Emergency Planning and Community Right-To-Know Act (EPCRA) provisions in Florida. The SERC, along with the LEPCs, work to mitigate the effects of a release or spill of hazardous materials by collecting data on the storage of hazardous chemicals above planning quantities. The Technological Hazards Section at the Florida Division of Emergency Management provides programmatic support for the SERC.

- FDEP maintains and staffs emergency depots, including the establishment and training of a volunteer corps;
- Maintain the SEOP;
- Assist and provide guidance (when requested) for the development and maintenance of local and inter jurisdictional disaster plans;
- Maintain a roster of trained personnel, skilled in disaster prevention, preparedness, response, and recovery;
- Provide direct emergency support to local communities in declared emergencies including spills; and
- Provide emergency notification and conference call capability with local Parish Emergency Operations Centers.

# 2000 Command

The complexity and jurisdictional characteristics of the incident will determine the level of involvement of Federal, state, local, and tribal agencies, the Responsible Party, and other responders. It is expected that the UC participants will be determined based on each incident. The table below outlines the State and Federal lead agency for specific incident types. Please note that this chart only shows the agency with primary authority, it does not reflect the fact that multiple agencies typically coordinate on each incident.

| | Oil | HazMat | Biological | Radiological | Disaster |
|---|---|---|---|---|---|
| **Florida** | FDEP | FDEP | FDEP | FDEP | FDEP |
| **Federal** | EPA/USCG | EPA/ USCG/ DoD | EPA/ USCG | EPA/USCG/ DOE/DoD/NRC/ NASA | FEMA |

The USCG has developed an All-Hazards Incident Management Handbook which provides some guidance as to organizational set-up and roles/responsibilities for hazardous substances as well as mass-casualty incidents. These are found in Chapter 15 (Multiagency Coordination under the NRF), Chapter 19 (Mass Casualty/Mass Rescue), Chapter 20 (Oil Spill), and Chapter 21 (Hazardous Substance) of the USCG Incident Management Handbook (IMH).

# 2100 Hazardous Substance Incident/Unified Command Objectives

Primary Unified Command objectives:

- Identify the hazards;
- Isolate the hazard area, and secure the source;
- Protect the safety of the public and responders;
- Mitigate impact(s) to the environment;
- Remove contamination; and
- Activate response plans.

Other possible Unified Command objectives:

- Assess the threat of release;
- Environmental monitoring;
- Sample and forensic evidence collection/analysis.

# 2200 Criminal Incident Management

At the onset of a response, it is often unclear whether the cause of a release was accidental or criminal. Local responders will likely be the first to arrive on scene to assess the situation and possibly take initial response measures to contain or stop the release.

In instances where criminal activity is suspended, coordination is required between law enforcement, who view the incident as a crime scene, and other first responders who view the

incident as a hazardous substance release or a disaster site. Although protection of life remains paramount, the protection and processing of the crime scene is imperative so perpetrators can be identified and apprehended. These dynamic objectives will be accounted for by forming a Unified Command with the applicable law enforcement agencies.

Since 9/11/01, much attention has been given to terrorist incidents. A nuclear, biological, or chemical WMD type terrorist incident is inherently a hazardous substance release with a criminal investigation component. As such, it should be responded to under the National Response Framework (NRF). The Terrorism Incident Law Enforcement and Investigation Annex to the NRF also provides guidance on response to criminal incidents with significant impacts. A terrorist incident will always be treated as a federal crime scene, thus giving the Federal Bureau of Investigation (FBI) and local/state law enforcement agencies the initial lead in each response. Be aware that the FBI can activate federal resources to assist in the response activities.

The UC responding to an incident where terrorism is involved must be acutely aware of the unique nature of the Federal Government's response mechanisms for these types of incidents. HSPD-5 gave DHS the lead federal role for coordinating federal support to a state and local response; however, nothing in the NRF changes legal authorities or responsibilities outlined in other federal, state, or local laws and regulations. The UC may find themselves working with DHS, FBI, FEMA, or a number of other federal agencies under the NRF.

If a responder suspects terrorism, the FBI and local/state law enforcement must be notified as soon as possible. Given available evidence, statements, scenario, and intelligence; the FBI/Law Enforcement agencies will make the determination on whether the incident is credible. The FOSC may be approached by the law enforcement agencies to assist in obtaining initial investigative samples to confirm their "credible threat" determination if local sampling resources are not identified or available.

The FOSC should share all available and applicable information with the law enforcement agencies to assist them in making these determinations.

# 2300 Notification Requirements

## 2301 Federal

Releases of CERCLA hazardous substances, in quantities equal to or greater than their reportable quantity (RQ), are subject to reporting to the National Response Center under CERCLA, 40 CFR Part 300.125(c). Such releases are also subject to state and local reporting under Section 304 of SARA Title III (Emergency Planning and Community Right to Know Act (EPCRA)). CERCLA hazardous substances, and their RQs, are listed in 40 CFR Part 302.4. CERCLA and EPCRA RQs may also be found in the EPA's "List of Lists" at EPA NEPIS. Radionuclides listed under CERCLA are provided in a separate list, with RQs in Curies.

While there are no statutory reporting requirements for releases of pollutants or contaminants for terrorist-related threats; the National Response Center will accept all reports of potential terrorist incidents and pass the report along to the appropriate agencies. All emergencies should also be immediately reported to 911 to activate local law enforcement and response resources.

## 2302 Florida State

The Florida Department of Health Services (FDHS) has a central office in Tallahassee, FL. During the initial emergency phase of a pollution incident, the FOSC or designated representative should notify the State Warning Point at 1-800-320-0519 / 850-644-4636. The State Warning Point will then notify all appropriate health services.

The Florida Department of Environmental Protection (FL DEP) is the states lead for air, water, and soil impacts. FL DEP Office of Emergency Response (FL DEP OER) would coordinate with various program sections within FL DEP. Florida Department of Health (FL DOH) has the state lead for indoor air quality monitoring and will look at the health standards as related to the response.

The Hazardous Assessment and Response Team (HART) is a FL DEP OER team typically deployed after a storm passes. HART looks at abandoned containers, sunken vessels, and conduct facility inspections. At times, members of the EPA and USCG inspection and assessment teams have been part of the HART. ESF 10 sends various missions to the HART. The Survey 123 app was used to collect information in the field.

Contact information: Contact the Florida State Warning Point 24/7 at 1-800-320-0519 / 850-815-4001

https://www.naccho.org/membership/lhd-directory?searchType=standard&lhd-state=FL#card-filter

Emergency Contact phone numbers for Florida Department of Environmental Protection:

https://floridadep.gov/dleer/oer/content/emergency-contact-numbers

## 2303 Public Information

For the most update public information management strategies, best practices and job aids, follow the protocols and procedures outlined in the National Response Team (NRT) Joint Information Center (JIC) Model.

## 2304 Health and Safety

Follow requirements of 29 CFR Part 1910.120. For hazardous substance specific information please see Section 7000 of this annex for reference materials to learn where you can find information specific to health and safety during hazardous substance incidents.

## 2305 Liaison

The following is a list of potential stakeholders who may be involved in addition to the agencies who are typically involved in an oil spill.

- Local/State hazmat and health departments;
- Local/State Emergency Management Agencies;

- Bomb squads or DoD Explosive Ordinance Detachments;
- Department of Health and Human Services (HHS), Centers for Disease Control and Prevention (CDC), or Agency for Toxic Substances and Disease Registry (ATSDR);
- Nuclear Regulatory Commission (NRC) or DOE;
- Department of Agriculture (USDA);
- National Guard Civil Support Teams;
- Private Sector Clean-up Companies;
- Laboratories/Transportable Laboratories; and/or
- Other stakeholders identified in this plan or other local plans.

# 3000 Operations

Operational activities for hazardous substance, pollutant, or contaminant releases are dependent upon the manner in which they are released (i.e., explosion, train derailment, fire, etc.) and the environment (air, water, soil) and/or structures impacted by the release. However, operational activities can be grouped into the following general steps:

- Determine threat to human health and the environment;
- Notification;
- Evacuate/shelter-in-place;
- Communicate the hazard warning to others;
- Removal of victims to safe area;
- Observe signs and symptoms of casualties;
- Determine extent of contamination;
- Establishment of exclusion, contamination reduction, and support zones;
- Control access to the area;
- Determine the contaminant/hazards involved;
- Control/stop further releases;
- Initiate decontamination procedures for response personnel/equipment;
- Sample water/soil/air/product;
- Contain material already released; and
- Implement countermeasures.

## 3100 Sampling Assistance and Resources

The following agencies can provide onsite sampling followed by laboratory analysis of hazardous substances. For each entity, we have identified their capabilities with these abbreviations: Toxic Industrial Chemicals (TIC), Chemical or Biological Warfare Agents (WMD), and Radiation (RAD).

| Entity | Location | Phone Number | Capabilities |
|---|---|---|---|
| **Federal** | | | |
| US EPA- Region 4 | Atlanta, GA | (800) 241-1754 | TIC, WMD, RAD |
| CG Gulf Strike Team | Mobile, AL | (251) 441-6601 | TIC, WMD, RAD |
| FBI Hazardous Materials Response Unit | Washington, D.C. | (202) 324-3000 | TIC, WMD, RAD |
| **Florida State** | | | |
| National Guard 44th & 62nd Civil Support Team | Jacksonville/ Clearwater, LA | (904) 682-2419 | TIC, WMD, RAD |

For a complete listing, see the following link to the: Hazardous Materials Response Special Teams Capabilities and Contact Handbook.

## 3200 Laboratory Assistance and Resources

The following laboratory resources and networks can be used to identify appropriate sampling techniques, analytical methods, and available laboratories for the analysis of samples from various matrices:

| Laboratory Source | Description | Contact/Info |
|---|---|---|
| **Centers for Disease Control and Prevention** | Laboratory Response Network (LRN) - A collaborative effort of federal, state, military, and private labs to aid in response efforts of a TIC, WMD, or RAD event. | 800-232-4636 http://www.bt.cdc.gov/lrn |
| **EPA Environment Response Laboratory Network (ERLN)** | A network of agency, State environmental, commercial and other Federal laboratories who will provide integrated, rapid analysis using standardized diagnostic protocols, and procedures. | https://www.epa.gov/emergency-response/environmental-response-laboratory-network |
| **EPA Laboratory Compendium** | Network of EPA national labs, state public health, and private labs to aid in a water security event, in addition to TIC, WMD, and RAD events. | 703-818-4200 https://www.epa.gov/emergency-response/erln-lab-compendium-fact-sheet |
| **Association of Public Health Laboratories (APHL)** | State Public Health Laboratories-Emergency Contact Directory. | http://www.aphl.org/AboutAPHL/contactus/Pages/default.aspx |
| **National Environmental Laboratory Accreditation Program (NELAP)** | Current listing of accredited environmental labs and their primary accreditation body, in addition to types of sample media the labs can analyze. | http://www.nelac-institute.org/accred-labs.php http://www.nelac-institute.org/content/NELAP/accred-bodies.php |
| **National Environmental Method Index (NEMI)** | Search all chemical, biological, microbial, toxicity, and physical methods in NEMI. | https://www.nemi.gov/home/ |
| **EPA Method Collection** | Standard Analytical Methods (SAMs) for environmental measurement and regional EPA laboratory contact information. | http://www.epa.gov/fem/methcollectns.hrm |

# 4000 Planning

## 4100 Coordination with other Hazardous Materials Planning

Planning for hazardous substance response happens at a number of levels throughout the FKAC's area of responsibility. As a result of the SARA Title III requirements, State Emergency Response Commissions (SERCs), Local Emergency Planning Committees (LEPCs), and Tribal Emergency Response Commissions (TERCs) were formed. Within Louisiana, absent a formal TERC, the senior tribal representative is responsible for implementation of all SARA Title III provisions. The purpose of these groups is to develop local emergency response plans, participate in exercises to ensure preparedness at the local level, and arrange for training for local responders. In addition, local departments of emergency management (or similar groups) may assist with these functions as well as notification of hazardous substance incidents. The federal government provides very limited funding to SERCs, LEPCs, and TERCs through the Hazardous Materials Emergency Preparedness grant program. The level of SERC, TERC, and LEPC activity varies widely from across the region. The emergency management positions vary and may be a Department of Emergency Management, Emergency Services, Civil Defense, or Disaster Services.

The FKACP serves as the primary response-planning document for the federal and state response agencies in the FKAC boundaries.

## 4200 Natural Resource Trustees

The following list outlines the Trustees for natural resources designated in Subpart G of the NCP, and provides a brief description of the resources that may be potentially impacted as a result of an oil spill or hazardous material release. Natural resources include land, fish, wildlife, biota, water, ground water, drinking water supplies, and other such resources. This list is provided for informational purposes and is not intended to be all-inclusive.

### 4201 Federal Trustees

#### 4201.1 Department of the Interior

Through the Bureau of Indian Affairs, Bureau of Land Management, Bureau of Reclamation, Fish and Wildlife Service, National Park Service, Bureau of Ocean Energy Management, Bureau of Safety and Environmental Enforcement, this department are the trustees for:

- Migratory birds and certain anadromous fish, endangered species, and marine mammals and their supporting ecosystems;
- Federally owned minerals;
- Federally managed water resources;
- Natural and cultural resources located on, over, or under land administered by DOI through its component bureaus;
- National Parks, National Wildlife Refuges, National Landscape Conservation Areas, etc; and
- Those natural resources for which an Indian tribe would otherwise act as trustee in those cases where the United States acts on behalf of the Indian tribe.

### 4201.2 Department of Commerce
Through the National Oceanic and Atmospheric Administration, this department are trustees for:

- Marine fishery resources and certain anadromous fish, endangered species, and marine mammals and their supporting ecosystem;
- National Marine Sanctuaries (Florida Keys National Marine Sanctuary); and
- National Estuarine Reserves.

### 4201.3 Department of Agriculture
Through the U.S. Forest Service, this department is the trustee for any natural and cultural resources located on, over, or under land administered by USFS.

### 4201.4 Department of Defense
The DoD is the trustee for any natural and cultural resources located on, over, and under land administered by the DoD.

### 4201.5 Department of Energy
The DOE is the trustee for any natural and cultural resources located on, over, and under land administered by the DOE.

## 4202 State Trustees
The State Warning Point is the State of Florida's emergency notification center. The State Warning Point can contact the appropriate FDEP office and other emergency responders in the event of an emergency. The phone number is (850) 815-4001 or 1-800-320-0519.

## 4203 Tribal Trustees
Tribes with reservations and/or usual and accustomed hunting or fishing grounds within the state of Florida applicable to this plan, must be notified by the Federal On-Scene Coordinator in the event an incident may impact or threaten to impact any of their resources. Since boundaries for usual and accustomed hunting and fishing grounds may be complicated, it is recommended that the Department of the Interior and/or the Bureau of Indian Affairs (BIA) be consulted to ensure proper notifications are made. Tribes must also be notified if there may be potential impact from a spill or spill response operations to any tribal cultural resources. Again, DOI and BIA may assist in identification of tribes for notification; however, it remains the FOSC's responsibility to make all proper notifications to tribes.

# 4300 Air Plume Modeling
The National Response Framework designated the Interagency Modeling and Atmospheric Assessment Center (IMAAC) as the single Federal source of airborne hazards predictions during incidents that involve multiple federal agencies. IMAAC is responsible for producing and disseminating predictions of the effects from hazardous chemical, biological, and radiological releases. IMAAC is not intended to replace or supplant dispersion modeling capabilities that Federal agencies currently have in place to meet agency-specific mission requirements. Rather, it provides interagency coordination to use the most appropriate model for a particular incident and

for delivery of a single Federal prediction to all responders. An IMAAC fact sheet can be downloaded here: https://narac.llnl.gov/.

Emergency IMAAC assistance can be requested through IMAAC Operations at 925-424-6465 or through the DHS National Operations Center at 202-282-8101.

The CAMEO Suite of applications (CAMEO - Computer-Aided Management of Emergency Operations, ALOHA - Aerial Locations of Hazardous Atmospheres, and MARPLOT - Mapping Application for Response, Planning, and Local Operational Tasks) is designed to allow the user to plan for and respond to hazardous substance incidents.

The CAMEO Chemical Database has identification information and response recommendations for thousands of chemicals commonly transported in the United States. CAMEO also includes blank database templates that state and local organizations can enter information for facilities that store hazardous substances. The CAMEO software suite can be downloaded for free from: https://www.epa.gov/cameo.

ALOHA can predict the movement of hazardous substances in the atmosphere and display this on a digital map via MARPLOT. ALOHA has almost a thousand chemicals in its database. MARPLOT uses electronic maps created by the Bureau of Census that cover the entire country and can be downloaded for free as part of the CAMEO software suite mentioned above. Local HazMat Teams are often proficient with ALOHA modeling.

## 4400 Transition to Long-Term Cleanup

At some point after the peak of the initial response phase, the nature of site activities may evolve into a long-term clean-up/remedial phase. Depending upon the scope of activities and the ability of the local responders, post-initial response and mitigation phase efforts may necessitate mobilization of additional resources. Also, it is possible that additional federal and/or state agency representatives may need to be involved with the long-term phase to ensure that regulatory mandates are followed. It is critical that the initial responders debrief the incoming clean-up staff prior to demobilizing. Standard long-term/remedial clean-up actions are:

- Evaluate clean-up/decontamination options;
- Implement cleanup alternatives; and
- Long-term monitoring or remediation of impacted area, if necessary.

## 4500 Disposal

A number of different hazardous wastes may be generated as a result of an incident. The Responsible Party or lead agency must address proper disposal of the wastes in accordance with the Resource Conservation and Recovery Act (RCRA), the NCP, and the FKACP, state, and local regulations. See Annex G (Disposal) of this plan for Florida State Disposal Guidelines. Options for disposal of material connected to the emergency response action will be addressed by the State with support by the federal agencies for those agents, substances, or radioactive materials that need special care.

### 4501 Biological Waste (WMD)

The need to dispose of material contaminated with biological agents is rare, and therefore standard protocols do not exist. Often it is possible to neutralize the biological agent, after which the material may be treated as non-hazardous garbage. The appropriate disposal method for biological waste will be dependent on the specific situation, and will be influenced by politics. It will require consultation between local, state, and federal partners as well as agreement from the disposal site operator.

# 5000 Logistics

## 5100 Emergency Response Teams

Information regarding Hazardous Materials Response Teams available to the FOSC can be found in Section 5000 (Support Available to the FOSC) of Volume 1 of this plan.

## 5200 Contractor Support

There are a number of contractors in the State of Florida with expertise in responding to hazardous substance releases. It is essential that any contractor retained have the appropriate training to meet the OSHA 29 CFR Part 1910.120 health and safety requirements and be capable of responding in the appropriate level of protection.

# 6000 Finance/Administration

There are a number of federal and state funding sources that may be accessed to pay for costs incurred at an incident. These sources are set up as funding mechanisms in the event that the responsible party is unable/unwilling to provide funding of response actions. Access to these funding sources is possible through the federal or state agency that is responsible for administering the fund.

Under CERCLA, the Hazardous Substance Response Trust Fund (Superfund) was established to pay for cleanup of releases of hazardous substances and uncontrolled hazardous waste sites. The EPA manages and administers this fund. In order for a response/clean-up to be initiated using the Superfund, there must be a release or the threat of release of a CERCLA hazardous substance, pollutant, or contaminant. The release must cause a threat to public health or welfare or the environment based on the criteria outlined in the NCP, 40 CFR Part 300.415(b)(2). Pollutants or contaminants must meet a higher threshold of posing an "imminent and substantial endangerment" to human health or the environment. The FOSC makes these determinations.

The NCP 40 CFR Part 300.415(b)(2) criteria for accessing the Superfund:

- Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;
- Actual or potential contamination of drinking water supplies or sensitive ecosystems;
- Hazardous substance or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of a release;

- High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;
- Weather conditions that may cause hazardous substances or pollutants or contaminants to or be released;
- Threat of fire or explosion;
- The availability of other appropriate federal or state response mechanisms to respond to the release; and
- Other situations or factors that may pose threats to public health or welfare of the United States or the environment.

## 6100 Local Government Reimbursement

Local authorities (county, parish, city, municipality, township, or tribe) may apply for reimbursement of costs incurred in response to an incident through the EPA, which administers the Superfund. States are specifically excluded from seeking reimbursement from the Superfund. Local governments are eligible for reimbursement up to $25,000 per incident for costs such as overtime charges, response contractors, equipment purchased for the response, and replacement of damaged equipment. The EPA may accept only one request for reimbursement for each hazardous substance release incident. EPA cannot reimburse for costs previously budgeted for by the local government. More information for the Local Government Reimbursement (LGR) program may be obtained by calling EPA's LGR Helpline at: (800)431-9209 or visiting the following link: https://www.epa.gov/emergency-response/local-governments-reimbursement-program

## 6200 Cost Documentation

All entities and agencies should document the full range of costs in responding to an incident. It may not be clear at the onset of an incident how costs might be recovered; it is important that records are accurate and complete.

Upon completion of all site activities and/or completion of each phase of an incident, the FOSC may be responsible for submitting letters and/or reports to other agencies. Also, those responders and agencies that accessed fund sources must provide written documentation and information to support the cost incurred. Costs must be fully and accurately documented throughout a response. Cost documentation should provide the source and circumstance of the release, the identity of the Responsible Parties, the response actions taken, accurate accounting of federal, state, or private party costs incurred for response actions, impacts, and potential impacts to the public health and welfare and the environment.

# 7000 Additional Reference Materials

| Information Source | Description | Web Link |
|---|---|---|
| **Code of Federal Regulations** | 29 CFR - Labor<br>33 CFR - Navigation and Navigable Waters<br>40 CFR - Protection of the Environment<br>40 CFR 300 - NCP<br>49 CFR - Transportation | Titles can be found online at the following web address: https://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR |
| **Safety** | | |
| | NIOSH Manual of Analytical Methods | http://www.cdc.gov/niosh/docs/2003-154 |
| | OSHA Guidance Manual for Hazardous Waste Site Activities | http://www.osha.gov/Publications/complinks/OSHG-HazWaste/4agency.html |
| | Agency for Toxic Substances & Disease Registry (ATSDR), Medical Management Guidelines for Acute Chemical Exposures: includes information on physical properties, symptoms of exposure, standards and guidelines, personal protection, decontamination, and care for first responders, pre-hospital, and hospital providers. | http://www.atsdr.cdc.gov/MMG/index.asp |
| **Chemical Properties** | | |
| | Centers for Disease Control and Prevention (CDC) Chemical Specific Information | http://emergency.cdc.gov/agent/agentlistchem.asp |
| | ATSDR Chemical Specific 2-Page Info Sheet | http://www.atsdr.cdc.gov/toxfaqs/index.asp |
| | NIOSH Pocket Guide to Chemical Hazards | http://www.cdc.gov/niosh/npg/ |
| | ACGIH TLVs and BEIs | http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/overview |

| | | |
|---|---|---|
| | The Merck Index | https://www.rsc.org/merck-index?e=1 |
| **First Responder References** | | |
| | EPA OCS Blue Book- A collection of field related resources | http://www.epaosc.org/_bluebook/bluebook.asp |
| | | |
| | CSX Transportation Emergency Response to Railroad Incidents | http://csxhazmat.kor-tx.com/ |
| | DOT Emergency Response Guidebook<br><br>(Note: This is generally updated every 4 years). | http://www.phmsa.dot.gov/hazmat/library/erg |
| | ATSDR - HazMat Emergency Preparedness Training and Tools for Responders | http://www.atsdr.cdc.gov/hazmat-emergency-preparedness.html |
| **Military References** | | |
| | USAMRIID Medical Management of Chemical Casualties Handbook<br><br>USAMRIID Medical Management of Biological Casualties<br><br>Textbook of Military Medicine (TMM)<br><br>Defense against Toxin Weapons Manual | http://www.usamriid.army.mil/education/instruct.htm |

# Florida Keys
# Area Contingency Plan
# (FKACP)

## Marine Fire Fighting and Salvage

# Annex E

May 2022

## Record of Changes

| Change Number | Change Description | Section Number | Change Date | Name |
|---|---|---|---|---|
| 1 | | | | |
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# Table of Contents

# 1000 Introductions

## 1100 Purpose

This plan provides a planning and coordination framework for salvage and firefighting response activities needed to facilitate the recovery of the United States (U.S.) Marine Transportation System (MTS) following a Transportation Security Incident or Marine Casualty. The plan further supports the clearing of the port navigation system in waterways to enable the resumption of maritime commerce in the Coast Guard Captain of the Port (COTP) Key West.

This plan identifies and relies upon existing authorities, procedures, policies, funding mechanisms, sources of technical expertise, and salvage and firefighting resources for incident management activities and operations needed to facilitate resumption of maritime commerce following a TSI, threat of a TSI, or marine casualty. This plan does not create new policy or change existing salvage response policy, nor does it in any way substitute for the laws, regulations, maritime salvage precedents, and funding mechanisms that apply in any given situation.

This plan consolidates polices, responsibilities, and procedures for effective coordination of Federal, State, and local responders and should be used in conjunction with existing state, local, and commercial contingency and resource mobilization plans. This plan is not intended to supersede any existing mutual aid agreements. Incident scenarios are provided only to present possible courses of action during incident response and are not designed to limit an Incident Commander (IC) or UC setting its own specific objectives to address the unique challenges of an incident.

## 1200 Procedures for Reviewing, Updating, and Exercising

This plan is a living document and will continue to evolve, reflecting lessons learned from application, training and exercises. The Coast Guard COTP Key West is responsible for maintaining this plan by either consecutively numbering plan amendments or by issuing full plan revisions. Stakeholders should review and make recommendations to update this plan after each tabletop, full scale exercise, marine firefighting or salvage incident.

### 1201 Exercises and Training

Proper training and exercises are necessary to ensure smooth coordination and good working relationships in the event of an actual fire or incident. Realistic exercises also demonstrate the capabilities of the various organizations involved and reveal possible conflicts or weaknesses in the plan. This plan should be exercised triennially.

### 1202 Scope

This plan applies to vessels, wrecks, obstructions, and marine debris that are a physical impediment to the port navigation system within the waterway and are thereby preventing, interrupting, or otherwise impeding the flow of maritime commerce.

### 1203 Assumptions

The following provides the foundation for the all-hazards approach to response missions and successful implementation of this plan:

- Protection of human life and health are the most important considerations in plan development and execution.
- Maintaining continuity of operations and facilitating commerce in the port area are critical considerations.
- It is in the best interest of all to increase safety by establishing and improving communications among all response agencies including port stakeholders.
- The National Oil and Hazardous Material Contingency Plan, National Response Framework, and other response plans may be activated for the purpose of response and crisis management.
- Although local USCG units are not equipped to fight fires, the COTP is mandated with protecting and mitigating damage to vessels, ports and waterways within the COTP zone.
- There will be competing demands for security, response and recovery resources during incidents as they increase in scope, scale and complexity.
- The Alert Warning System (AWS) and HOMEPORT will be used as the primary means of communication with stakeholders.
- ESF positions at the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) and at local Emergency Operation Center's (EOC's) will be staffed with USCG Liaison Officers (i.e. ESF-10, ESF-9) during an incident(s).

## 1204 Notifications

### 1204.1 Notifications of Marine Casualties

Regulations requires owners, agents, masters, operators, or persons in charge, immediately after addressing resultant safety concerns, to notify the Sector Key West, whenever a vessel is involved in a marine casualty. The casualties include:

- An unintended grounding or an unintended strike of (allision with) a bridge;
- An intended grounding, or an intended strike of a bridge, that creates a hazard to navigation, the environment, or the safety of the vessel;
- A loss of main propulsion, primary steering, or any associated component or control system that reduces the maneuverability of the vessel;
- An occurrence materially and adversely affecting the vessel's seaworthiness or fitness for service or route, including but not limited to fire, flooding, or failure of or damage to fixed fire-extinguishing systems, lifesaving equipment, auxiliary power-generating equipment, or bilge-pumping systems;
- A loss of life;
- An injury that requires professional medical treatment (beyond first aid) and, if the person is engage or employed on board a vessel in commercial service, that renders the individual unfit to perform his or her routine duties;
- Any occurrence causing property damage in excess of $25,000, this damage including the cost of labor and material to restore the property to its condition before the occurrence, but not including the cost of salvage, cleaning, gas-freeing, dry docking, or demurrage;
- An occurrence involving significant harm to the environment.

### 1204.2 Incident Specific, Critical Information

Following a report of an incident, certain initial information must be gained to deploy successful response and salvage operation. This list is not all-inclusive, but may be used to ensure certain critical information is gathered from on-scene personnel as well as from response resources. Many of the ship design particulars may be retrieved from the vessel's Shipboard Oil Pollution Emergency Plan (SOPEP) and the Vessel Response Plan (VRP). Coordination with vessel responders as identified in the VRP is crucial to obtaining this information promptly.

**All Incidents**

- Safety status of the crew
- Proximity to navigation hazard
- On-scene weather conditions
- Forecasted weather conditions
- Contracted resources
- Potential damage/breaches in hull
- Potential for spill or plume
- Status of ground tackle
- Communications nature and schedule
- Quantity/nature of cargo/fuel/ballast
- Status of propulsion and steering

**Grounding**

- Pre-casualty drafts
- Post-casualty drafts
- Tide height at grounding
- Location
- Depths of soundings
- Time/height of next high tide
- Liquid level of all tanks
- Availability of salvage resources
- Bottom type

**Fire**

- Status of shipboard fire pumps
- Status of fixed firefighting systems
- Risk of further damage to vessel
- Status of emergency electrical systems
- Availability of firefighting resources

**Collision/Allision/Flooding**

- Relative stability of each vessel
- Status of ships dewatering systems
- United States Coast Guard/United States Army Corps of Engineers/State notified

# 2000 Authority and Responsibilities

## 2100 Responsible Party

Under normal circumstances the primary responsibility for taking or arranging action to resolve an obstruction or other impediment to navigation is the identified owner, operator, or lessee of the vessel or wreck; or, the owner, operator or lessee of other obstructions in the waterway such as structures, trains, cars, and other vehicles. Where a discharge of oil, hazardous substance release or threat thereof is involved, primary responsibility belongs to the Responsible Party (RP).

The identified owner, operator, or lessee of a sunken or grounded vessel or wreck bears lead responsibility in the event that the U.S. Army Corps of Engineers (USACE) and the USCG jointly determine that such a vessel or wreck is a hazard to navigation and must be removed expeditiously.

In the case of an incident, the RP must take adequate measures to mitigate and/or remove damage, or risk of damage, caused by the vessel or the release of any material from the vessel. The RP will pay for all legitimate response measures up to their limit of liability as stated on their Certificate of Financial Liability. If an RP cannot be identified, or the acting RP fails to adequately respond, the Federal On-scene Coordinator may take control of a particular aspect of, or the entire response. In this case funding will be provided by the federal government until an RP is identified and charged for the response.

## 2200 Federal

### 2201 Coast Guard Policy

The USCG cannot delegate its statutory authorities and shall not delegate mission responsibilities to state and local agencies. Sector Key West shall not be party to any agreement that relinquishes USCG authority, evades USCG responsibility, or places Sector military personnel under the command of any persons not part of the Federal military establishment. USCG forces and personnel will only be subject to the authority of their superiors in the within the chain of command or the COTP may delegate authorities as necessary.

#### 2201.1 Fire Fighting

The USCG has no specific statutory responsibility to fight marine fires; but the COTP Key West is charged with the responsibility for navigation and vessel safety, safety of waterfront facilities, and protection of the marine environment within the COTP's area of jurisdiction. This authority allows the COTP to:

- Direct the anchoring, mooring, or movement of a vessel;
- Specify times of vessel entry, movement, or departure to, from, or through ports, harbors, or other waters;
- Restrict vessel operations in hazardous areas; and
- Direct the handling, loading, discharge, storage, and movement; including emergency removal, control, and disposition of explosives or other dangerous cargo or substances, on any bridge or other structure on or in the navigable waters of the United States or any land structure immediately adjacent to those waters.

An agency charged with providing fire protection for any property of the United States may enter into reciprocal agreements with state and local firefighting organizations to provide for mutual aid. Further, an agency which provides that emergency assistance may be rendered in the absence of reciprocal agreements, when it is determined by the head of that agency to be in the best interest of the United States.

The USCG has traditionally provided firefighting equipment and training to protect its vessels and property. Occasionally, Coast Guard units are called upon to provide assistance at fires on board vessels and at waterfront facilities. For more detailed information regarding the USCG's policy and firefighting capabilities, see the U.S. Coast Guard Addendum to the U.S. Search and Rescue Supplement (NSS) to the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR).

### 2201.2 Wreck Removal

The USCG works closely with the U.S. Army Corps of Engineers (USACE) to ensure a coordinated approach to maintaining safety and the functionality of the port navigation system in U.S. ports and waterways. The USCG serves as the Federal Government's primary agency for responding to threatened or actual pollution incidents in the coastal zone. The USCG is one of two primary agencies for Emergency Support Function (ESF) #10 (Oil & Hazardous Materials Response), which includes mission-specific salvage response. The Coast Guard, upon the request of FEMA, may provide management and contract administration for certain Mission Assignments MAs under the authority and funding of the NRF. The COTP, as FOSC, is responsible for maintaining and implementing this wreck removal plan. Immediately upon discovery of an obstructing vessel or object, the USCG has responsibilities for marking and for making notifications.

### 2201.3 Key West Federal On-Scene Coordinator/Captain of the Port

The FOSC/COTP will provide on-scene representatives that are familiar with shipboard construction, layout, common firefighting systems, and vessel stability. FOSC/COTP authority can be exercised as necessary to maintain safety of the port, associated waterways, and maritime related facilities. The degree to which that authority will be exercised will depend on a number of factors, but will generally be based on the nature of the incident, the degree of danger posed to the port and the information provided through the establishment of a Unified Command.

The COTP authority extends over the land-side areas of all waterfront facilities such as shipyards, terminals, piers, and wharves. Their responsibilities include:

- Coordinate firefighting and salvage activities under a Unified Command;
- Coordinate all Coast Guard forces and equipment responding to the incident;
- Coordinate port safety and vessel traffic management with maritime industry representatives;
- Control vessel traffic as necessary in the incident are to minimize the adverse impact of the incident on marine traffic and to facilitate firefighting and/or salvage operations;
- Establish safety or security zones as necessary;
- Provide information on the involved waterfront facilities;

- Provide information on the location of hazardous materials on the vessel or at the facility, if available;
- Provide technical data on ship's construction and stability;
- Respond to oil discharges or hazardous substance releases. Actual removal may be delayed until firefighting and/or salvage operations are complete; however containment and protective measures should be implemented immediately;
- Evaluate relocating moored and anchored vessels in vicinity of salvage operation; and
- Alert owner/operators of terminals and/or vessels at risk.

The COTP/FOSC's primary concern in responding to a vessel or facility fire is to ensure the safety of life and protection of the environment. Secondary concerns include vessel traffic and preserving property. Paramount in preparing for vessel or waterfront fires is the need to integrate Coast Guard planning and training efforts with those of other responsible agencies, particularly local fire departments and port authorities. COTPs shall work closely with other Coast Guards units, municipal fire departments, vessel and facility owners, and operators, mutual aid groups and other interest organizations to ensure planning in each ports' Area Contingency Plan for the COTP zone in accordance with federal law and Coast Guard regulations.

### 2201.4 Marine Safety Center Salvage Emergency Response Team

The U.S. Coast Guard's Marine Safety Center Salvage Emergency Response Team (SERT) is on call to provide immediate salvage engineering support to the COTP/FOSC in response to a variety of vessel casualties. Specifically, SERT can assist the COTP/FOSC manage and minimize the risk to people, the environment, and property when responding to vessels that have experienced a casualty.

### 2201.5 National Strike Force

The National Strike Force (NSF) provides highly trained, experienced personnel and specialized equipment to the Coast Guard and other federal agencies to facilitate preparedness and response to oil and hazardous substance pollution incidents in order to protect public health and the environment.

## 2202 Other Federal Agencies

### 2202.1 U.S. Army Corp of Engineers

The U.S. Army Corp of Engineers (USACE) serves as the Federal Government's primary agency for maintaining the navigability of federal channels in domestic ports and waterways. The USACE arranges for and conducts hydrographic surveys, assessments of navigation conditions, and dredging. The USACE also has authority that may be applicable for removing wrecks from federal navigable channels, and more limited authority to address obstructions that pose hazards to navigation.

### 2202.2 Navy Supervisor or Salvage

The Navy Supervisor of Salvage (SUPSALV) is the Department of Defense's principal source of salvage expertise. SUPSALV, upon request, may provide federal-to-federal support for salvage response. SUPSALV and the USCG cooperate in oil spill clean-up and salvage operations.

### 2202.3 National Oceanic Atmospheric Administration

The National Oceanic and Atmospheric Administration (NOAA) provides scientific support for response and contingency planning in coastal and marine areas; including assessments of the hazards that may be involved, predictions of movement and dispersion of oil and hazardous substances through trajectory modeling, and information on the sensitivity of coastal environments to oil and hazardous substances. In addition, NOAA provides expertise on living marine resources and their habitats, including endangered species, marine mammals, and National Marine Sanctuaries.

NOAA also provides aerial and hydrographic survey support and expertise. NOAA administers the Abandoned Vessel Program (AVP). The main objective of this program is to investigate problems posed by abandoned and derelict vessels in U.S. waters. The program maintains various information resources.

### 2202.4 Bureau of Safety and Environmental Enforcement

The Bureau of Safety and Environmental Enforcement (BSEE) is responsible for ensuring comprehensive oversight, safety, and environmental protection in all offshore energy activities. BSEE handles safety and environmental enforcement functions including, but not limited to, the authority to inspect, investigate, summon witnesses and produce evidence, levy penalties, cancel or suspend activities, and oversee safety, response, and removal preparedness.

### 2202.5 Federal Emergency Management Agency

The Federal Emergency Management Agency (FEMA) provides advice and assistance to the FOSC on coordinating civil emergency planning and mitigation efforts with other federal agencies, state and local governments, and the private sector. FEMA's Mobile Emergency Response System (MERS) also provides extensive rapid deployment mobile communications capabilities for use in oil/ hazardous substance response on a not-to-interfere basis with other emergent situations. A MOU is being developed with FEMA's MERS to specify the level and type of support available in a response. In the event of a major disaster declaration or emergency determination by the President, FEMA will coordinate all federal disaster or emergency action with the FOSC.

### 2202.6 U.S. Department of Transportation

The U.S. Department of Transportation (DOT) provides response expertise pertaining to transportation of oil or hazardous substances by all modes of transport.

### 2202.7 National Transportation Safety Board

The National Transportation Safety Board (NTSB) has authority and responsibility for investigation of major transportation incidents and may engage in preservation of evidence and safety investigation in conjunction with salvage operations that have not been determined to be as a result of an act of terrorism.

### 2202.8 Federal Bureau of Investigation

The Federal Bureau of Investigation (FBI) has law enforcement investigation responsibility for acts of terrorism and may engage in preservation of evidence and law enforcement investigation in conjunction with salvage operations that are in response to acts of terrorism.

## 2300 State and Local Governments

(a) State, local, tribal, and territorial governments have an important role in determining priorities and developing a rational approach to coordinating efforts to accomplish rapid marine survey, salvage, and wreck/debris removal in (or adjacent to) their jurisdictions.

(b) State, local, tribal, and territorial government agencies have certain responsibilities for removal of obstructions and debris that are outside of defined federal navigable waters and do not create hazards to navigation.

(c) Some states have established abandoned and derelict vessel programs for their waters to address removal of abandoned vessels that do not pose a risk that would trigger removal actions by federal agencies.

## 2400 Vessels

In the case of a vessel fire or salvage operation, the Responsible Party is the vessel's Owner, Operator, Master, or Designees. The vessel's Master or Designee will maintain control over the vessel, crew, and passengers unless otherwise directed by the COTP. The presence of any Federal, State, and/or Local agencies does not relieve the vessel's Master of command or responsibility for overall safety on the vessel.

However, the Master of a vessel should not normally countermand any orders given by fire fighters in the performance of firefighting activities, unless the action taken or planned clearly endangers the safety of the vessel or crew. The Master, Officers, and Crew of the vessel shall assist in firefighting and salvage operations in accordance with the VRP and salvage company point of contact. The Master shall be the liaison between the Incident Commander/Unified Command and the Crew. The Master shall furnish, if possible, the Incident Commander/Unified Command with any information requested. The Master should provide the Incident Commander/Unified Command with members of the crew to act as guides. The Master shall control the actions of the crew. In the absence of the Master, the Chief Mate or Chief Engineer is expected to represent the vessel.

### 2401 Primary Resource Provider

The Primary Resource Provider as identified in the VRP will be the point of contact for the Responsible Party, the FOSC, and the Unified Command, in matters related to specific salvage and firefighting resources and services listed in the Vessel Response Plan.

## 2500 Waterfront Facilities

In the case of a Waterfront Facility, the Responsible Party is the Owner or Operator of the involved Waterfront Facility. The Responsible Party will normally be represented in a Unified Command through a facility designated "incident commander". The waterfront facility owner or operator will maintain control over facility operations and access control. The presence of federal, state, and local agencies does not relieve the facility Owner or Operator of responsibility for the overall safety of the facility or its personnel.

## 2600 American Salvage Association

Leading U.S. salvage operators have formed the American Salvage Association (ASA). Created in response to the need for providing an identity and assisting in the professionalizing of the U.S. marine salvage and firefighting response. The intention of the ASA is to professionalize and improve marine casualty response in U.S. coastal and inland waters. The ASA meets with various federal and state agencies to exchange views on the improvement of salvage and firefighting response in the U.S.

# 3000 Situation

The complexity, scope, and potential consequences of an incident require that there be a coordinated effort between all MTS users and local state and federal agencies. This effort requires open communication, enhanced awareness of potential threats and coordinated procedures for preparedness, prevention, protection, response and recovery.

## 3100 Marine Transportation Infrastructure

There are three main Marine Transportation System (MTS) infrastructures and systems throughout the Key West COTP zone.

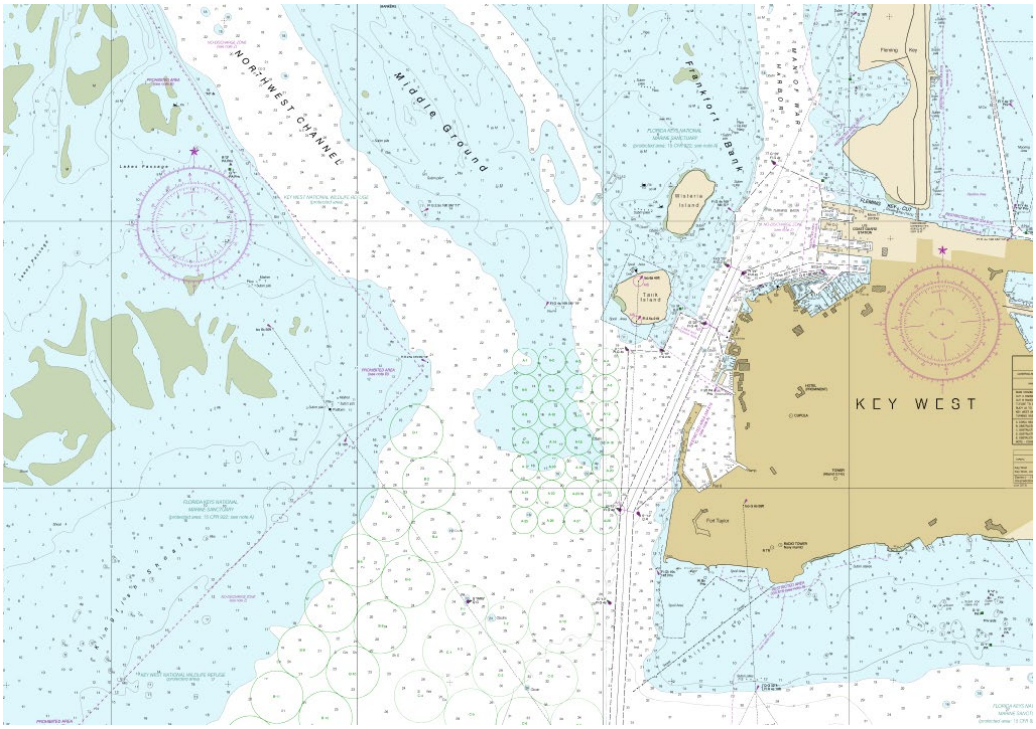
- Hawks Channel
- Key West Main Ship Channel
- Northwest Channel

### 3201 Counties

There is only one county within the Key West AOR - Monroe

### 3202 Ports

This plan covers the Port of Key West. This the only designated deep water port within the Florida Keys. It also is adjacent to all of our 33 CFR 105 regulated facilities.



# 4000 Federal, State, and Local Agencies

## 4100 Tier 1 Agencies

Tier 1 Agencies are those agencies that are classified as first responders such as police, fire and emergency medical units that are normally dispatched through the Emergency-911 System and are capable of responding within minutes. Federal and state agencies are also included; response time varies for these agencies. Most local first responder agencies average a response time of less than five minutes; while agencies located throughout and out-of-state can take as long as 24 hours to respond.

## 4200 Tier 2 Agencies

Tier 2 Agencies are those with special recovery and containment capabilities for dealing with hazardous materials, rough terrain, underwater search and recovery, and other agencies having excavation or heavy equipment capabilities (e.g., mobile heavy-lift cranes). Tier 2 agencies may take 24 to 48 hours to respond.

## 4300 Tier 3 Agencies

Tier 3 Agencies are the National Guard, military reserve, and other national level response elements. Tier 3 agencies may take up to several days to respond.

# 5000 Command

A major waterfront facility, vessel fire, or a salvage operation will involve response teams from federal, state, and local agencies. The nature and location of the incident will be the deciding element in determining which agency assumes overall command or lead agency in a unified command. Overall command or lead agency must be determined as early as possible in the incident to ensure the effective use of personnel and equipment.

## 5100 Command Interrelationships

The incident command system is the accepted organization system used by federal, state, and local response organizations and other involved parties. .

### 5101 Unified Command

In instances when several jurisdictions are involved or several agencies have a significant management interest or responsibility, a Unified Command with a lead agency designation may be more appropriate for an incident than a single command response organization. Generally, a Unified Command structure is called for when the incident occurs that crosses jurisdictional boundaries, involves various government levels (e.g. federal, state, local), impacts functional responsibilities, or a combination thereof. Such circumstances would pertain for almost any fire at a facility or a vessel at pier side or anchorage located in the Key West COTP zone because of similar responsibilities of local fire departments, other emergency response organizations, and the Coast Guard for the saving of life, the environment, and property.

### 5102 Federal On-Scene Coordinator's Representatives

The Federal On-Scene Coordinator's Representative (FOSCR) acts as the primary on-scene liaison with response organizations during a marine fire or salvage response.

## 5200 Transfer of Command

The presence of local fire fighters or USCG personnel does not relieve the Master or Owner/Operator of command, or transfer their responsibility for overall safety on the vessel or facility. However, the Master should not normally countermand any orders given by local fire fighters in the performance of firefighting activities onboard the vessel or facility, unless the action taken or planned clearly endangers the safety of the vessel's safety and crew.

## 5300 Command Posts

When an incident occurs there is an immediate need for a coordinated/integrated response effort, since federal, state, and local jurisdictions will be involved. If this occurs a Command Post will be established on-scene by the lead responding agency. The USCG FOSC or FOSCR should be on hand and maintain communications with the USCG resources involved. Other key personnel that may be on hand at the on-scene command post include vessel's officers, marine chemist, facility operator, local responders, and port officials. The representatives present should have authority to make decisions to facilitate rapid and proper response.

## 5400 Incident Command System

The USCG has adopted the use of the National Incident Management System (NIMS)/ Incident Command System (ICS) for its response system. Standard USCG ICS forms can be found at http://homeport.uscg.mil/mycg/portal/ep/home.do. Conduct a search with 'ICS Forms' and the forms will populate.

## 5500 Incident Action Plan

Incident Actions Plans (IAPs) will be prepared by the Unified Command, as appropriate, to the situation and in accordance with the National Incident Management System/Incident Command System protocols. Pre-incident IAP templates may be developed, adapted, and applied, as available and appropriate to the incident.

# 6000 Operations

Initial response operations will be the responsibility of the owner/operator of the vessel, platform, or facility. Owners and operators of vessels, platforms, or facilities must develop their own contingency plans to respond to marine fires.

## 6100 Firefighting

Local firefighting organizations (municipal, industrial, and contractor) must be prepared to respond within the limits of their training and capabilities. If firefighting resources are not trained or capable of handling a marine fire, they can take appropriate measures to prevent the fire from spreading to nearby exposures. The USCG cannot contract mutual aid organizations for vessel,

platform, or facility owners/operators. Facility owners and operators must take additional steps to limit the spread of fire to or from their facility and any vessels docked nearby.

The USCG will provide assistance as available including:

- Active participation within a Unified Command;
- Establishing safety zones;
- Rerouting or restricting vessel traffic;
- Making marine broadcasts;
- Assistance with search and rescue or medical evacuation;
- Deployment of USCG resources;
- Pollution response.

The Key West COTP will be prepared to continue in the role of FOSC (within the Unified Command) upon conclusion of firefighting operations to oversee salvage operations or pollution response. Other affected organizations, particularly pollution response or salvage organizations, will respond as directed by the Incident Commander or Unified Command (or the Responsible Party).

The Master of the Vessel may deny local firefighters access to his vessel. He will then utilize his resources to control and fight the fire. If the USCG determines that the Master's efforts are inadequate, actions may be taken to ensure a proper response. The designated Incident Commander or Unified Command will direct employment of responding resources. Firefighting resources will be employed based on:

- Rescue/life safety;
- Location and extent of fire;
- Class of fire and cargo involved;
- Potential impact on local community;
- Additional exposure concerns (facilities, vessels, docks, structures, etc.);
- Possibility of explosion;
- Stability of the vessel or platform;
- Hazard to crew or other resources at location;
- Weather forecast;
- Maneuverability of vessel;
- Effects on bridges which must be transited;
- Alternatives if the vessel is not allowed entry to or movement within a port.

The Key West COTP or representative of the COTP serving within the Operations Section will direct the employment of USCG resources (small boats, helicopters, USCG Strike Team, etc.) in accordance with established policies and the needs of the Incident Commander or Unified Command. Other responding agencies will report to the IC/UC for assignment of duties. The Master of the Vessel or Platform supervisor will:

- Implement the initial response based on the fire control plan of the vessel or platform.

- Establish communications, both internal and external. Ensure that proper notifications are made to the appropriate fire department or contractor and the Coast Guard. If appropriate, notify the facility to which the vessel is docked, the port authority, and any nearby vessels.
- Control the operation and use of all fixed firefighting systems aboard the vessel or platform.
- Coordinate the efforts of shipboard or platform fire teams in responding to the fire.
- Decide if it is necessary to abandon ship/platform. If the crew is ordered to abandon ship/platform, the master or supervisor will ensure that the proper procedures are carried out and that the Coast Guard is immediately notified. The IC/UC will then coordinate the firefighting operations of all responding agencies.

Operational response will be based on the following tactical priorities:

- Rescue/Life Safety
- Protection of Exposures (facilities, vessels, docks, structures, etc.)
- Containment, Extinguishment, and Property Conservation
- Fire Salvage and Overhaul
- Environmental Protection

Vessel and Facility Salvage Marine Firefighting response considerations include:

- Establishment of a command post and appropriate implementation of ICS/Unified Command;
- A complete size-up to determine potential for rescue operations and what is burning (class of fire and materials involved);
- Contact appropriate marine firefighting, environmental response, and marine salvage contractors (as necessary by Owner/Operator or COTP if necessary);
- Determination as to whether the fire main system is operating and the location of other firefighting resources on board;
- Obtaining the fire control plan of the vessel, platform, or facility;
- Hose lines taken aboard vessels should be large hose lines (4" to 6") with reducers for smaller hand lines and sufficient international shore connections (as appropriate);
- Maintaining two separate gangways to the vessel, one for personnel access and the other distinctly to serve as a hose conduit or support;
- Determination as to whether the ventilation system is operable. If not, portable equipment may be required;
- Consider need for additional lighting resources to support operations;
- Planning for additional equipment to arrive on scene during early stages of the response. Establish appropriate staging areas for arriving equipment;
- Recognition that a language barrier may exist. The vessel's agent, a vessel's officer, or other interpreter may be required.

The Sector Key West COTP will:

- Be prepared to assume the role of Incident Commander or FOSC within a Unified Command if the firefighting response is inadequate or non-existent;

- Provide USCG resources to support the Incident Action Plan established by the Incident Commander or Unified Command;
- Assist the Unified Command in developing the Incident Action Plan and in integrating resources into the response;
- Actively participate with representatives from the State of Florida, local municipalities, industrial mutual aid organizations, and appropriate fire response contractors.

## 6101 Fire Control Plan

Vessel fire control plans are stored in a weather tight container at the topside of the gangway usually attached to the bulkhead or inside the access door to the superstructure. This plan is available for use by shore side firefighting personnel. The plan shows a layout of each deck, fire protection systems aboard the vessel, and other information important to firefighting responses.

## 6102 Shipboard Firefighting

Marine firefighting is substantially different from standard structural firefighting requiring specialized equipment and training. The Unified Command should follow some general guidelines for operational considerations:

- Muster the Crew - Remove all non-essential personnel off the vessel and away from the scene. Make sure the Master, Mates, and all engineering personnel remain where they can be used as an information resource.
- Rescue - Life safety must always be the first consideration in any fire or emergency situation. When lives are in danger, the Unified Command must quickly assess whether the situation necessitates immediate removal of personnel, the number of persons that need extraction and the hazards to the rescue team.
- Exposure - Typical exposures include flammable liquid or gas tanks, open stairways, explosives, or any other substance that would accelerate or aid the spread of the fire. Provided there is no danger of water reactivity, exposures are best cooled by application of a fog pattern until no visible steam is generated. For some two dimensional surfaces foam may be an appropriate agent for exposure protection.
- Confinement - To accomplish proper containment, all closures and generally all ventilation (unless personnel are trapped inside the space) should be secured. Establish primary fire, smoke, and flooding boundaries. Primary boundaries are critical to the control of the fire. Monitor and cool the boundaries, as necessary, on all six sides of the fire (fore, aft, port, starboard, above, and below).
- Stability - During firefighting excess water onboard can create flooding and free surface effect. This could prove disastrous for the vessel leading to list and even sinking. Since local fire services do not typically have training in this field, there is a substantial risk that this could occur. This is the area of expertise that other response agencies will depend on the Coast Guard to contribute. The Salvage Engineering Response Team (SERT) is available 24/7 to provide professional advice and provide technical solutions.
- Extinguishment - The fuel source, amount of fuel/surface area and the location of the fire will determine the tactics and agents to be used.

- Overhaul - Ensuring that the fire will not re-flash and determining the point of origin and source of ignition. A detailed photographic record of the fire scene prior to commencing overhaul is a necessity to aid in post fire investigation.
- Ventilation - Generally, all ventilation on a vessel will initially be secured upon receipt of a fire alarm. Utilization of ventilation tactics to aid in extinguishment should not begin until a coordinated attack is staged.

**6102.1 Burning Vessel Movement Considerations**

A crucial decision that must be made by the COTP is whether or not a burning vessel should be allowed to enter or move within the port. Types of vessel movements that may be required in an emergency include movement from sea to an anchorage or a pier; from an anchorage to a pier; from a pier to an anchorage; grounding a vessel; or scuttling a vessel offshore.

**6102.2 Decision to Allow a Burning Vessel to Enter Port or Move within the Port**

Due to the limited resources available to fight an offshore fire, the COTP may be forced to consider allowing a burning vessel to enter port. .

There are numerous considerations that the COTP should evaluate when faced with the decision of whether or not to allow a burning vessel to enter or move within a port. The following information should be gathered and considered prior to making such a decision:

- Location and extent of fire;
- Status of shipboard firefighting equipment;
- Class and nature of cargo;
- Possibility of explosion;
- Possibility of vessel sinking/capsizing;
- Hazards to crew or other resources where vessel is present;
- Forecasted weather (including bar conditions if applicable);
- Maneuverability of the vessel (i.e. is it a dead ship, etc.);
- Availability (and willingness) of assist tugs;
- Effect on bridges under which the vessel must transit;
- Potential for the fire to spread to the pier or pier structures;
- Firefighting resources available ashore and offshore;
- Possibility of vessel sinking or capsizing thereby becoming an obstruction to navigation;
- Consequences/alternatives if the vessel is not allowed to enter or move;
- Potential for pollution.

The above considerations should be investigated by the Lead Fire Department's Chief and/or the IC/UC by examining the vessel and cargo manifest before the vessel is allowed to enter port or move within the port. The COTP should make every effort, as the situation allows, to consult with the appropriate Fire Department Chief, Port Director, local government officials, Vessel Owner's Agent, and other experts depending when making a decision.

In addition, the FOSC/COTP, in conjunction with the USCG Seventh District, and the Region IV Regional Response Team (RRT), shall assess the pollution risks and determine whether the vessel will be allowed to proceed to sea to reduce the risk of the pollution hazards.

Entry to port or movement may be permitted when:

- The fire is already contained or under control;
- There exists little likelihood that the fire would spread;
- A greater possibility exists that fire could and would be readily extinguished with available equipment in port before encountering any secondary hazards of explosion or spread of fire;
- All relevant and available parties have been consulted.

Entry to port of movement may be denied when:

- There is greater danger that the fire will spread to other port facilities or vessels;
- The likelihood of the vessel sinking or capsizing within a navigation channel, and becoming an obstruction exists;
- The vessel may become derelict;
- Unfavorable weather conditions preclude either the safe movement of the vessel under complete control or would hamper firefighting (high winds, fog, strong currents, etc.);
- Risk of a serious pollution incident by oil or hazardous substances exists.

Additional considerations:

- Safety Broadcast and Notice to Mariners;
- Ordering the movement of other vessels or cargo that may be impacted;
- Locating the vessel to best facilitate the use of available resources.

### 6102.3 Positioning a Vessel for Firefighting

This section addresses the positioning of a vessel that is on fire while underway or docked. No vessel on fire should be moved without the permission of the COTP, except under the most urgent conditions.

The probability of success or failure of a shipboard fire response effort will be significantly impacted by the vessel's location. The likelihood of successfully fighting a fire on a remotely located vessel is small compared to a vessel located near sufficient sources of firefighting resources.

### 6102.4 Fire Suppression Berths

Several considerations enter into the selection of piers as a location to fight a shipboard fire:

- Paramount is the combustibility/flammability of pier structures and contiguous facilities;
- Availability of adequate volumes and pressure of fire protection water;
- Access to response boats and vehicles;
- Minimizing risk of impeding navigation;
- Risk to nearby vessels and facilities.

### 6102.5 Anchorage and Grounding Site Selection

When choosing anchoring or grounding locations, some of the same factors must be considered, as well as it effects on navigation and minimizing the risk to surrounding communities and to the environment. The possibility of the vessel sinking or becoming a derelict is very real and could prove a greater harm to the marine system than the loss of a single vessel. The initial considerations are:

- Bottom material - Soft enough so that the ship's hull will not be ruptured;
- Water depth - Shallow enough so that the vessel could not sink below the main deck, yet deep enough so that fire boats, salvage barges, and tugs can approach; tides and other river level fluctuations must be considered;
- Area - Accessibility to firefighting, spill response, and salvage assets.

The location and suitability of boat ramps and piers to be used as staging areas must also be evaluated when considering grounding or anchoring sites.

### 6102.6 Reasons for Denial

Entry into a port or movement within a port may have to be denied when:

- There is danger that the fire will spread to other port facilities or vessels;
- The vessel is likely to sink or capsize within a channel, becoming an obstruction to navigation;
- The vessel might become a derelict;
- Unfavorable weather conditions preclude the safe movement of the vessel or would hamper firefighting (high winds, fog, strong currents, etc.);
- Risk of serious pollution incident by oil or hazardous substance exists.

## 6103 Offshore Firefighting Considerations

In addition to the problems associated with any shipboard fire, an offshore incident is further complicated by the poor flow of information and difficulties in supplementing the vessel's firefighting resources. Reports from the vessel may be confusing due to language difficulties or the simple fact that the crew is too busy fighting the fire to provide detailed information. Until additional resources can be brought to bear, the vessel's firefighting equipment and crew will be the only resources available. The vessel's Primary Resource Provider is required to have firefighting and salvage assets and personnel on scene within the planning timelines listed in the Vessel Response Plan. Additional resources in the form of public or private vessels may not be close enough to respond in a timely manner and may be ill-equipped to provide significant assistance.

### 6103.1 Coast Guard Offshore Resources

During an offshore fire, ships and aircraft become important resources. Coast Guard Aircraft may provide a timely source of information during the early stages of a response and can be used for personnel or equipment transfers. Coast Guard vessels are limited in their ability to assist in a shipboard fire, but are much better equipped than commercial vessels and have damage control teams that are drilled regularly in shipboard firefighting. In addition to improving communications, larger Coast Guard vessels with flight decks can be used to stage equipment flown to the scene.

### 6103.2 Department of Defense Offshore Resources

Firefighting equipment may be available from various Department of Defense (DOD) sources. In addition to the transportation capabilities, DOD aircraft and vessels can be invaluable in an offshore fire situation for the same reasons discussed for Coast Guard assets. The possibility of Naval or USACE vessels operating in the vicinity which can assist should not be overlooked. All requests for DOD assistance should be made through the USCG Seventh District Command Center.

### 6103.3 Other Offshore Resources

Any ship becomes a valuable resource during an offshore vessel fire, even those with small crews and minimal firefighting capability. At a minimum, another vessel can provide a means of escape for a burning vessel's crew should their efforts to control the fire fail.

Vessels in the area may be notified of a situation via Automated Mutual Assistance Vessel Rescue System (AMVER) or with a Broadcast Notice to Mariners.

Tug companies in the vicinity may assist in fighting the fire, moving a dead ship or transporting equipment. While few vessel operators would be reluctant to assist in a life-threatening situation, vessel owners may not be willing to respond to a fire-fighting situation that could risk their vessels or crew in order to protect a ship or cargo once the crew is safe.

### 6103.4 Offshore Scuttling Area Selection

If a vessel cannot be safely moved to a port, and it is possible that the vessel and cargo could be lost (either intentionally or not) the vessel should be moved to an area where environmental damage will be minimized. The information in this section should be reviewed to identify the best area to move the vessel. Depending on the positioning of the vessel, COTP should consult with BSEE, EPA, and NOAA on any decision concerning the scuttling of a vessel.

## 6104 Shore side Incidents

For fires at a facility or on a vessel moored to a facility, there should be one command post. The Command Post should be established as close to the incident as safety permits. Ideally the command post would be located in an office at the facility. At a minimum, it should:

- Accommodate multiple telephone lines;
- Provide a large open area to permit status boards maintenance;
- Provide adequate lighting, heating, etc.

## 6105 Basic Priorities of Firefighting

It is impossible to anticipate every task or activity that will be required to effectively respond to major marine fires. There are, however, several basic priorities, that must be addressed, particularly in the case of a vessel fire at sea.

- Once initial notification is received, responders must determine the worst-case scenario and the urgency of the situation;

- The appropriate resources need to be informed and requested;
- If the incident appears imminent and substantial, response resources must be dispatched immediately before making routine notifications and obtaining additional information.

### 6106 Response Actions

Situation assessment is one of the initial and critical actions taken in a response to a marine fire. This involves evaluation of available facts and probabilities.

The assessment consists of at least the following six steps to rapidly form a deliberate plan of action:

1. Gather facts
2. Assess probabilities
3. Determine resources
4. Apply basic firefighting principles
5. Decide a course of action
6. Formulate a plan of operations

Pertinent facts might include location of fire, location of crew/personnel, acquiring vessel fire plan, vessel/facility condition, stability issues, type and condition of cargo, and response equipment available.

### 6107 Control of Vessels and Waterfront Areas

To secure the safety of waterfront facilities and vessels, the COTP may control or restrict vessel traffic in the affected area. The COTP has the sole authority to establish a Safety Zone.

A Safety Zone may be established around a burning vessel to facilitate access for fire or rescue units and to protect uninvolved persons or vessels, or it could be used to ensure the safer transit of a vessel carrying dangerous cargo. Safety Zones should be established on a temporary, and usually, emergency basis in response to a situation beyond the scope of normal safety measures.

### 6108 Investigations

After a fire involving a vessel or a facility, several agencies may become involved in an investigation to determine a cause.

## 6200 Salvage

Any salvage response will be characterized by the type of incident that required it and the salvage response will ensure waterways can support maritime commerce as a post-incident activity once initial response has been completed. Salvage response operations, for planning purposes, are considered an element of the short-term recovery phase (3-90 days post incident).

The following progression provides an orderly approach:

1. Perform an assessment to determine what has happened and what is needed (if anything) in terms of a salvage response.

2. Primary responsibility for salvage response belongs to the RP, and through the RP, to insurance underwriters. Determine if there is a RP or not, and whether or not the RP has accepted responsibility and is capable of performing the necessary salvage response within an acceptable period, as determined by applicable rules and regulations. If so, then determine oversight responsibility within the UC and coordinate oversight and support as may be appropriate consistent with applicable jurisdiction and authority. If not, or there is no RP, proceed to Step 3.
3. Determine the appropriate authority and funding source or combination of authority and funding sources that is/are available and will be needed to perform essential salvage response. Determine federal lead and supporting roles, and transitions in roles and responsibilities when multiple authorities and funding streams will be needed to complete salvage response. Once Authority and Funding are identified, a salvage plan specific to the incident should be developed. The incident specific salvage plan should be prepared by technical specialists with the subject matter expertise necessary to conduct site-specific salvage assessments and to develop and implement procedures to resolve the obstruction(s) to navigation.
4. Once the arrangement for salvage support or contracting of commercial salvors to perform the salvage operation is made, the salvor will mobilize salvage response operations and conduct the necessary salvage operations.
5. Plan and conduct documentation and reporting to provide a record of salvage response and to track and monitor costs incurred by the Government. Periodic reporting will be required to keep the UC posted on developments, and will follow the reporting schedule and protocols that are established for the incident.

## 6201 Identify Response Resources and Salvage Assets

The RP should immediately contract and set into motion adequate response and salvage resources. Historically, there has been reluctance on behalf of the vessel's representatives to engage a professional salvor. A decision to attempt operations without a professional salvor should be examined critically by the FOSC. To assist the RP in contracting a professional salvor, the FOSC may share information of proven response and salvage resources. In addition to ensuring that the RP has contracted adequate response resources, the FOSC should identify and deploy appropriate Coast Guard resources to respond to the incident. These response teams should include unit Pollution Responders, Casualty Investigators, and Marine Inspectors. Furthermore, the U.S. Coast Guard Salvage Emergency Response Team (SERT) at the Marine Safety Center should be engaged and, potentially the Navy's SUPSALV.

## 6202 Vessel/Cargo Salvage Plan

Working with the RP and a naval architect, the salvor must develop a salvage plan. The plan must detail actions to be taken and resources to be used, and it must set organizational responsibilities and the anticipated schedule. After the plan is prepared and prior to initiating salvage operations, the RP must submit the plan to the FOSC or the FOSC designated representative, for review. The FOSC will review the plan, and approve or disapprove it based on real or potential risks to port safety and the environment. Any plans for the intentional jettisoning of cargo will be reviewed as part of the salvage plan.

Upon arrival, the salvage ship or vessels and personnel, should conduct damage control and position stabilization. Damage control actions may range from augmenting the ship's crew, to conducting firefighting and flooding control. Position stabilization consists of securing the ship at the first opportunity to prevent it from broaching or being driven further ashore.

The salvage plan should be considered a flexible working plan with appropriate changes made in response to changing conditions.

Depending on the urgency and complexity of the operations, the detail of the plan may vary. All involved partied must ensure that the plan provided is appropriate given the constraints of the operation. Given optimal conditions, as well as time and resources available, a complete salvage plan may include the following elements:

**All Incidents**

- Pre-incident drafts fore and aft;
- Cargo listings/volumes;
- Fuel volume;
- Status of vessel propulsion and steering systems;
- Post casualty drafts;
- Contingency planning in identifying possible failure points;
- Lightering considerations;
- Clear understandings or contractual agreement of responsibility for control of the vessel;
- Strength of hull girder, damaged areas, attachment points, and rigging;
- Booming considerations;
- Means for controlling interference between pollution response and salvage efforts;
- Potential pollution risks and precautions to avoid or minimizing impact;
- Communications plan;
- Anticipated start time and predicted tides, currents and weather.

**Grounding**

- Post casualty drafts/locations;
- Soundings;
- Bottom type;
- Estimated ground reaction;
- Force-to-free;
- Towing assets available/utilized and horse power of each;
- Predicted stability when re-floated;
- A summary of the engineering rational for retraction and re-floating techniques;
- Tow/rigging plan including attachment points.

**Lightering**

- Volume of cargo/fuel to be lightered;
- Type of cargo to be lightered;
- Identification of compatible receiving facilities;

- Special procedures to handle hazardous cargo/materials.

**Flooding**

- Identification and listing of all dewatering systems to be employed;
- Order of dewatering to ensure satisfactory stability of the vessel.

**Transit Plan**

- Identification of transit route and final destination;
- Means for controlling the vessel as it is freed;
- Route identified, with special attention to increase draft and beaching areas;
- Vessel escorts, if any, to be employed and horse power of each;
- Any preparation of the vessel necessary to gain permission for entry into destination.

## 6203 Salvage Plan Review

The following is designed to assist the FOSCR/COTP Representative to evaluate the impact of a Salvage Plan.

1. Quickly gather all information needed during the response to a marine casualty,
2. Provide the Responsible Party (RP) with a guide for preparing and submitting a salvage plan,
3. Develop quick action response plans specific to their unit,
4. Evaluate Salvage Plan for impact on:
    - Personnel safety,
    - The environment,
    - Waterways and shipping,
    - Commercial facilities,
    - Recreational areas,
    - The overall response effort.

## 6204 Salvage Plan Implementation

During Salvage Plan implementation, all parties must be in close communication, and the process should be brought to a halt if significant safety problems develop. The salvor, RP, and the FOSC/COTP or the FOSCR have the authority to stop salvage operations in this case.

Conditions must be continually monitored during salvage operations to ensure no additional risk to personnel, the environment, or infrastructure. In the case of a heavily damaged vessel, the risk to the port and the environment may not warrant allowing the vessel to transit through or be brought into the harbor. In some cases, it may be desirable to allow the vessel to sink in deep water to mitigate environmental damage, or minimize risk to life. These are decisions that will involve all parties in the salvage effort, and the FOSC must take the lead to assure that the best management of the incident/threat is achieved.

### 6204.1 Salvage Response Considerations for other than Vessel Strandings

Salvage assistance may also be required for vessel sinking and rescues (towing). In these cases, the relationships between the various parties remain the same as for strandings. For sinking, the salvor must focus on methods for refloating the vessel, and vessel stability as it is refloated.

## 6205 Salvage Response Contractors

### 6205.1 Considerations in Evaluation Salvage Response Contractors

Often, the employment of professional salvage contractors during a marine casualty is critical to ensuring the safest and most expeditious resolution of an incident. The following guidelines assist the IC/UC in determining if the salvage contractor hired by the RP/Affected Party has the knowledge and capability to undertake the salvage operation. The salvage contractor should:

- Currently provide salvage response services;
- Have a documented history in the business;
- Own response equipment;
- Have trained employees;
- Have 24 hour capability and a history of proven response capabilities;
- Have a training program for employees;
- Have a history of drills and exercises;
- Have a history of creating comprehensive and successful salvage plans;
- Have membership in professional associations;
- Have employer's liability and salvors liability insurance;
- Be well capitalized for the intended operation;
- Have local experience;
- Have proven logistical capability;
- Follow OSHA and CG rules and regulations regarding HAZWOPER and diving operations.

# 6300 Salvage Response Activities Impacting the Marine Transportation System

This section provides a planning and coordination framework for salvage response activities impacting the Marine Transportation System (MTS). This section is for an incident involving the recovery of the U.S. MTS to support the clearing of the port navigation system in waterways to enable the resumption of maritime commerce in the Key West COTP zone.

Marine salvage currently lacks a comprehensive framework for coordinating marine salvage across "all hazards" and all forms of marine transportation disruptions. Typically, there are many authorities and funding streams that may be applied to resolve incidents involving marine salvage or similar marine services (e.g. for removal of wet debris). The principal pathways for salvage authority and funding are summarized in the sections below. Marine salvage may encompass the formal definition of salvage (i.e. rescuing something of value from peril) as well as wreck, obstruction and debris removal and each related activity may have different authorities, funding sources, and levels of Federal agency involvement.

When there is a non-pollution event in which a vessel or other obstruction is creating a hazard to navigation within federally defined navigable waters, the USACE serves as the lead Federal agency. The USACE will ensures either removal of the obstruction from or immediately adjacent to the Federal channel by the owner, operator, or lessee, or by effecting removal using hired labor forces or a contractor. In the latter case, the USACE then seeks reimbursement from the identified owner, operator, or lessee for justified and documented removal expenditures.
Unusual incidents have resulted in use of alternative authorities and funding sources such as highway funds, special authorizations, and appropriations by Congress (e.g., U.S. Department of Transportation-provided funding for the Interstate 35 (I-35) Highway Bridge collapse over the Mississippi River). In unusual situations, COTPs/FMSCs should seek program and legal guidance.

## 6301 Survey Coordination

When sunken vessels and other underwater obstructions inhibit vessel movement within the Port of Key West or other navigable waterways in the Key West COTP Zone, federal agencies, the responsible party, and other port partners must respond promptly, efficiently, and in a coordinated fashion to restore the Marine Transportation System. The U.S. Army Corps of Engineers (USACE) will coordinate all survey efforts to locate and identify waterway obstructions. The USCG and NOAA will assist these coordination efforts. The COTP, informed by the assessment and recommendations from the USACE and NOAA, will regulate waterways traffic in accordance with his statutory authorities.

## 6302 Survey Roles, Responsibilities & Capabilities

### 6302.1 U.S. Army Corps of Engineers (USACE)

The USACE will coordinate all survey efforts, locate obstructions, and advise the COTP as to whether waterways a) meet USACE project standards and b) are safe for vessel traffic. The USACE can direct responsible parties to conduct survey and salvage operations in some cases, and at times can provide federal funding for survey and salvage when no responsible party has been identified. The USACE maintains survey boats with multi-beam sonar units and survey boats with single-beam sonar units along the Main Ship Channel. These USACE vessels will strictly operate during daylight hours.

### 6302.2 U.S. Coast Guard (USCG)

The USCG regulates all traffic on federal waterways and can communicate waterways status to the maritime community through written Marine Safety Information Bulletins and over VHF marine radio via Broadcast Notice to Mariners. The USCG has limited single-band sonar capabilities but generally does not have the equipment or expertise to locate underwater objects or the expertise to determine whether waterways meet USACE project standards. The USCG can direct responsible parties to conduct survey and salvage operations in some cases and can provide funding for survey and salvage operations when no responsible party has been identified in certain circumstances. All involved USCG personnel can be reached via the Sector Key West Command Center, at 305-292-7827.

### 6302.3 National Oceanographic and Atmospheric Administration (NOAA)

NOAA provides hydrographic technical expertise and is well qualified to evaluate survey data and review survey plans.

## 6303 Survey Coordination Processes

### 6303.1 Initial Notification

When a sunken vessel or some other hazard to navigation has been reported and may obstruct vessel traffic in a major waterway within the Key West COTP Zone, the USACE shall be immediately notified.

## 6304 Conducting Surveys

Determining the status of sunken vessels and other waterway hazards requires two main components: technical data and interpretation of that data. Government agencies (USACE, NOAA, FWCC) and some private entities within the Key West COTP zone can provide sonar resources and crews to gather technical data concerning underwater hazards.

### 6304.1 Survey data

Technical data can be collected by any vessel with sufficient sonar capabilities. Sonar equipment varies greatly in its accuracy and thoroughness in mapping channels and detecting underwater objects. Sonar equipment available in the Key West COTP zone can be classified in two groups: multi-band and single-band sonar.

### 6304.2 Multi-beam Sonar

Multi-beam sonar units provide very detailed depictions of underwater objects, and can be used to confirm the specific location of a sunken vessel. Surveying a given area with multi-beam sonar (as compared to single-beam sonar) is slow and time consuming.

### 6304.3 Single-Beam Sonar

In comparison to multi-beam sonar units, single-beam Sonar units can survey a large area in a short amount of time, but provide significantly less detail. Single-beam units typically cannot be relied upon to confirm the specific location of a sunken vessel

### 6304.4 Private Survey Resources

There is very limited sonar capabilities within the Florida Keys from private industry. The capabilities of the equipment, how well the equipment is calibrated, the proficiency of their operators, and the helpfulness of their information may vary. The USACE, NOAA, the Coast Guard, and Port Coordination Team representatives are well served by maintaining familiarity with the capabilities and status of private survey equipment and crews.

## 6305 Survey Resources & Points of Contact

| Federal: | |
|---|---|
| USCG NSF | 252-331-6000 |
| Gulf Strike Team | 251-441-6601 |
| Marine Safety Center | 202-372-1001 |
| USCG Sector Key West | 305-292-8727 |
| USCG District Seven | 305-415-6800 |
| USN SUPSALV | 202-781-1731 |
| US Army Corps of Engineers | 409-766-3899 |
| NOAA | 202-482-2000 |
| EPA | 800-887-6063 |
| FBI (Tampa) | 813-253-1000 |
| US Customs Service | 813-712-6000 |
| FEMA | 800-621-3362<br>www.FEMA.gov |
| Red Cross | 800-733-2767<br>www.redcross.org |
| Salvation Army | 800-728-7825 |
| Naval Air Station Key West Fire Department | 305-293-5810 |
| State Law Enforcement: | |
| Florida Department of Environmental Protection | 813-470-5700 |
| Florida Fish and Wildlife Conservation Commission | 813-272-2516 |
| Florida State Division of Emergency Management | (State Watch Office)<br>800-320-0519 |

| **Local Fire:** | |
|---|---|
| Florida State Watch Office | 800-320-0519 |
| Key West Fire Department | 305-292-8145<br>911 |
| Marathon Fire Department | 305-743-5266<br>911 |
| Islamorada Fire Department | 305-664-6490 |
| Key Largo Fire Department | 305-451-2700 |
| Station 7 - Key West | 305-809-5220 |
| Station 8 - Stock Island | 305-292-2797 |
| Station 9 - Big Coppitt | 305-295-0587 |
| Station 10 - Sugarloaf | 305-745-2210 |
| Station 11 - Cudjoe | 305-809-5291 |
| Station 13 – Big Pine | 305-872-0975 |
| Station 17 – Conch Key | 305-289-1313 |
| Station 18 - Layton | 305-664-4217 |
| Station 22 - Tavernier | 305-852-6285 |
| Trauma Star Air Ambulance | 305-289-1467 |
| **Local Law Enforcement:** | |
| Sheriff – Tavernier | 305-853-3266 |
| Sheriff – Islamorada | 305-664-6480 |
| Sheriff – Marathon | 305-289-2430 |
| Sheriff – Summerland Key | 305-745-3184 |
| Sheriff – Key West | 305-292-7000 |
| City of Key West Police Department | 305-809-1111 |
| **Emergency Services:** | |
| Florida Department of Emergency Management | 850-413-9911 |
| Monroe County Emergency Management | 305-289-6018 |
| Florida County Emergency Management | https://www.floridadisaster.org/counties/ |
| **Marine Chemists** | |
| John Loprino | 813-777-5365<br>https://www.marinechemist.org/atlantic.asp |

Click on the below link for information on all boat ramps:

https://myfwc.com/boating/boat-ramps-access/

## 6400 Oil/Hazardous Substance Release Mitigation and Lightering

Oil discharged, and hazardous substance releases are of the greater potential during groundings and almost a certainty during a major collision or other event when there is a breach in the hull. There are several ways to establish if there is an oil discharge or hazardous substance release. The primary method may be observation of a sheen emanating from the damaged vessel. However, this method may be of limited usefulness at night and is not indicative of damages inboard of the hull structure. Bunker and cargo tanks should be immediately sounded and monitored closely for changes that would indicate a breach. Given the high correlation between major marine casualties and pollution incidents, it is prudent to provide, at a minimum, containment boom to surround the vessel(s).

### 6401 Lightering

One of the most effective ways to mitigate or prevent an oil discharge is hazardous substance release is to remove all remaining cargo and unnecessary bunker fuel/cargo from the vessel. This is particularly useful when the risk of a hull breach is increasing due to changing environmental or physical conditions on the vessel. Vessels may be lightered to another vessel or a facility ashore. Choosing which is most appropriate will depend on the location of the vessel and availability of each. Whichever is chosen, it is important to ensure the receiving vessel or facility is qualified to handle the lightered material and that any cargo/residue in hoses and holding tanks are compatible with lightered material. Furthermore, the effects on the stability of the vessel should be taken into account when lightering a vessel. While lightering may present benefits when attempting to re-float a vessel, it may also present additional structural stresses upon the vessel. It is important to work with naval architects as well as the person-in-charge of cargo loading/offloading the vessel, who is frequently the Chief Officer or First Mate of the vessel.

## 6500 Places of Refuge

A ship in need of assistance may require a temporary place of refuge with adequate water depth for lightering or repairs in order to protect the marine environment. Ships may need to be brought into a harbor, anchored, or moored in protected waters; or temporarily beached in order the safely make repairs and stop the loss of oil or other hazardous substances. Disabled ships need to be repaired in order to resume safe navigation and prevent a shipwreck resulting in the loss of fuel and/or cargo. If leaking ships are not repaired, spilled oil and hazardous substances may affect the public health, environmental resources, and shorelines. Pier size and space is extremely limited in the Florida Keys and very few piers can house deep draft vessels.

## 6600 Termination of Response Activities

The IC or UC will make the determination of when to terminate response activities after consulting with the COTP/FOSC and the Operations Section Chief.

Upon termination of the emergency phase of the operations the UC organization role will shift to mitigation, clean up, recovery, and restoration. This shift in objectives and priorities may require

transfer of command to another agency(s) or departments of an already involved agency based on UC membership criteria.

# 7000 Planning

The IC/UC is responsible for organizing and staffing the Planning Section. It is preferred that these resources are the combined talents of the vessel, platform, or facility personnel; local firefighting resources; contractor personnel; and federal, state, and local agencies.

## 7100 Marine Transportation System Recovery Unit

The Coast Guard has adopted the inclusion of a Marine Transportation System Recovery Unit (MTRSU) in the planning section of a Unified Command structure.

The MTSRU will be established as quickly as practicable by the COTP/FMSC/FOSC during an incident response so that the unit is available to utilize the Common Access Reporting Tool (CART) to identify and assist in populating the Essential Elements of Information (EEI) needed for the MTS Recovery Assessments. Advisory support will be coordinated with port stakeholders. Procedures for establishing and operating the MTSRU is outlined in Sector Key West Marine Transportation System Recovery Plan located in the AMSP.

# 8000 Logistics

Responding agencies and resources will be responsible for their own administrative and logistical support until such time as a Logistics section is established. The Logistics Section Chief will be appointed by the Incident Commander or Unified Command.

# 8100 Resources

## 8101 Federal Resources

Refer to Section 6305 for agency contact information, as well as, Annex A Contact Spreadsheet for agency and other helpful links for the FKACP.

## 8102 State Agencies

Refer to Section 6305 for agency contact information, as well as, Annex A Contact Spreadsheet for agency and other helpful links for the FKACP

## 8103 Local Law Enforcement Agencies

Refer to Section 6305 for agency contact information, as well as, Annex A Contact Spreadsheet for agency and other helpful links for the FKACP.

## 8104 Local Fire Departments

Refer to Section 6305 for agency contact information, as well as, Annex A Contact Spreadsheet for agency and other helpful links for the FKACP.

## 8105 Port Assets

Refer to Section 6305 for agency contact information, as well as, Annex A Contact Spreadsheet for agency and other helpful links for the FKACP.

## 8106 Commercial Salvage Companies

Refer to Section 6305 for agency contact information, as well as, Annex A Contact Spreadsheet for agency and other helpful links for the FKACP.

### 8106.1 Companies with a USCG Basic Ordering Agreement

Refer to Section 6305 for agency contact information, as well as, Annex A Contact Spreadsheet for agency and other helpful links for the WCF ACP.

### 8106.2 Salvage and Dive Companies

Refer to Section 6305 for agency contact information, as well as, Annex A Contact Spreadsheet for agency and other helpful links for the FKACP.

### 8106.3 Private Firefighting Companies

Refer to Section 6305 for agency contact information, as well as, Annex A Contact Spreadsheet for agency and other helpful links for the WCF ACP.

# 9000 Finance

The owner/operator of the source of fire (facility, vessel, or platform) is responsible for the financial costs associated with marine firefighting. During the initial phases of the fire response, each responding entity would maintain their own cost accounting using their established organizational procedures. In the event of a large incident that extends into a long period of response, a more unified Finance/Administration Section may be established.

## 9100 Protection and Indemnity (P&I) Insurance

Large commercial vessels and barges typically have Protection and Indemnity (P&I) Insurance to cover instances that result in salvage. This insurance provides coverage to ship-owner and characters against third-party liabilities encountered in their commercial operations. Responsibility for damage to cargo, for pollution, for the death, injury or illness of passengers or crew, and for damage to docks and other installations are examples of typical exposures under P & I insurance.

## 9200 Federal Funding

A marine fire may lead to the release of harmful quantities of oil or hazardous substances. Dependent on the severity of the fire, the FOSC can access either the Oil Spill Liability Trust Fund (OSLTF) or the Superfund (CERCLA) to fund all appropriate measures of response to cleanup, mitigate, or prevent a release into the environment. In the most severe of circumstances, it may be appropriate for the FOSC to fund firefighting resource if the Responsible Party has not taken adequate or appropriate actions. See section 6000 of the Florida Keys Area Contingency Plan for accessing either the OSLTF or CERCLA funds.

## 9300 Salvage Response Contracts

### 9301 Types of Salvage Contracts

Salvage companies may operate under several types of contracts when conducting salvage operations. Some contract types such as Lloyd's open form may influence the level of cooperation between the salvor and the Unified Command. Incident Commanders/Unified Command should be aware of the type of contract that a salvor is operating under and its potential influence on coordination.

**Lloyd's Standard Agreement**

Lloyd's Standard agreement - No Cure No Pay (aka Lloyd's Open Form) is a contract which encourages the salvor to immediately and actively pursue the work independently for a sum to be agreed upon only after delivery of the vessel to safety. The salvor receives no financial compensation if the vessel is not delivered safely or if there is no salved value.

**Fixed Price, Lump Sums**

Fixed price, lump sums are contract formats stipulating a scope of work to be accomplished for a pre-negotiated amount. Fixed price encourages fast action but can induce a salvor to pursue the least capital intensive, more risky alternative to save expenses.

**Time and Materials or Cost Plus**
Time and materials or cost plus contract usually refer to a rate sheet or actual invoices for all assets employed or expended and indicate bonuses and penalties for completion. The contracting party can assume a more active management responsibility while the salvor may be less motivate for the speedy completion of the work unless the contract includes meaningful incentives.

# 10000 Marine Firefighting Checklist

<table>
<tr><td colspan="4">Initial information</td></tr>
<tr><td colspan="2">Name of Reporting Person:</td><td>Phone:<br>(  )  -</td><td>Address:</td></tr>
<tr><td colspan="4">Reporting Person’s Relationship to Incident (check box):<br><br>☐ Agent ☐ Master/CEO ☐ Work Party title: _____ ☐ Other: _____</td></tr>
<tr><td colspan="4">Nature of Incident (check box):<br><br>☐ Vessel Fire ☐ Facility Fire ☐ Explosion ☐ Collision ☐ Other:_____</td></tr>
<tr><td colspan="4">Location of Incident</td></tr>
<tr><td colspan="2">Latitude:</td><td colspan="2">Longitude:</td></tr>
<tr><td colspan="4">Vessel Fire</td></tr>
<tr><td colspan="2">Vessel Name:</td><td>Call Sign:</td><td>Exact location of fire (i.e., compartment, deck.)</td></tr>
<tr><td colspan="2">Agent Name:</td><td>Agent Phone:<br>(  )  -</td><td>Vessel Flag:</td></tr>
<tr><td>Marina:</td><td>Berth:</td><td>Anchorage:</td><td>Address (if applicable):</td></tr>
<tr><td colspan="4">Facility Fire</td></tr>
<tr><td colspan="2">Facility Name:</td><td colspan="2">Exact location of fire on facility:</td></tr>
</table>

| Facility Phone:<br>(  )  - | Address (if applicable): |
|---|---|
| **Fire and Safety Information** | |
| **Fire Details** | |
| Status of fire (circle one):<br><br>**Extinguished  Contained  Out of Control** | Class of Fire (check one):<br>□ Alpha (paper, wood, etc.)<br>□ Bravo (fuels)<br>□ Charlie (electrical)<br>□ Delta (metals) |
| Firefighting Efforts (check box):<br>□ None taken at time of report<br>□ In progress with vessel/facility crew<br>□ In progress with outside assistance<br>Specify: _____ | Source of fire (check box):<br>Source known? □ No  □ Yes<br>Source Secured? □ No  □ Yes |
| Shipboard/Facility Firefighting Systems:<br>Type(s) Available:  Type(s) Expended:<br>_____  _____<br>_____  _____<br>Remaining Resources:<br>_____<br>_____ | |
| | |
| | |
| **Safety Information** | |
| Personnel Status (check boxes):<br>Are there any personnel casualties?<br>□ Yes<br>□ No<br>Are there any personnel missing or trapped?<br>□ Yes<br>□ No<br>Location(s): _____<br>_____<br>Are there any injured personnel?<br>□ Yes<br>□ No<br>Injuries: _____ | MEDIVAC requested?<br>□ Yes<br>□ No |

| | |
|---|---|
| _____<br><br>Are there any deaths?<br>☐ Yes<br>☐ No | |
| Vessel Status:<br>Can the vessel maneuver?<br>☐ Yes ☐ No | Does the Master wish to anchor/moor the vessel?<br>☐ Yes ☐ No |

**Surrounding Area Hazards**

Cargo information:

Type: _____ Quantity: _____ Distance from fire: _____ Location: _____

Type: _____ Quantity: _____ Distance from fire: _____ Location: _____

Type: _____ Quantity: _____ Distance from fire: _____ Location: _____

Type: _____ Quantity: _____ Distance from fire: _____ Location: _____

Type: _____ Quantity: _____ Distance from fire: _____ Location: _____

Type: _____ Quantity: _____ Distance from fire: _____ Location: _____

Type: _____ Quantity: _____ Distance from fire: _____ Location: _____

Type: _____ Quantity: _____ Distance from fire: _____ Location: _____

Nearby Vessels/Facilities:

Type: _____ Name: _____ Distance from fire: _____

Type: _____ Name: _____ Distance from fire: _____

Type: _____ Name: _____ Distance from fire: _____

Type: _____ Name: _____ Distance from fire: _____

# 11000 Salvage Response Checklist

Fill this sheet out as completely as possible, when seeking salvage engineering assistance, and contact the SERT duty member using the contact information listed below. All fields marked with an "*" are necessary for increased accuracy of salvage calculations. This document can be found by searching for "Salvage Engineering" on the Coast Guard Homeport site at http://homeport.uscg.mil.

Vessel Name: _____ O.N. & Class Society: _____

Dimensions: *Length: _____ *Beam: _____ *Depth: _____
(keel to deck)

Vessel Specifics: *Full Load Draft: _____ *Service Speed: _____

*Vessel Type:

☐ Barge Carrier ☐ Barge w/o rake ☐ Barge w/rake
☐ Tank Ship ☐ Bulk Carrier ☐ Break Bulk
☐ Containership ☐ RO/RO ☐ LPG/LNG Carrier
☐ OBO ☐ Other: _____

**Type of Casualty:** *(Check all that apply)*

☐ Fire ☐ Explosion ☐ Grounding ☐ Collision/Allision
☐ Flooding ☐ Sinking ☐ Capsizing ☐ Oil/HAZMAT spill
☐ Structural Damage ☐ Other: _____

Date/Time of Casualty: Position: Lat:
Long:

***Drafts**

| Pre-Casualty<br>Date/Time Taken: | | | Post-Casualty<br>Date/Time Taken: | |
|---|---|---|---|---|
| Port | Starboard | | Port | Starboard |
| | | Forward | | |
| | | Midships | | |
| | | Aft | | |

***Bottom Type**

☐ Silt/mud ☐ Sand ☐ Coral ☐ Rock ☐ N/A

***Water Depth Information (Tide changes, River heights, Lake levels)**

Provide water depth information as applicable: _____

_____

At Time Of Incident _____High _____Low _____ Exp. Total Change _____

**Reported Damage/Pollution**

_____

_____

**Description of Vessel Cargo**

_____

_____

**Aim/Intent of Salvage Operation:** *(Check all that apply)*

☐ Lighter/Transfer ☐ Dewatering ☐ Lifting ☐ Towing ☐ Patching ☐ Beach Gear ☐ Other _____ Anticipated Date/Time of action: _____

**Technical Assistance Requested:** *(Check all that apply)*

What technical assistance would you like us to provide?

☐ Salvage Plan Review ☐ Oil Outflow Analysis ☐ Ground Reaction
☐ Force to Free ☐ Structural Analysis ☐ Stability Analysis
☐ Review Lightering Plan ☐ Other: _____

**Salvage Information Available:** *(Check all that apply)*

☐ General Arrangement Plan ☐ Loading Plan ☐ Trim & Stability Book ☐ Section Modulus ☐ Midship Section
☐ Computer Model (HECSALV, GHS, SHCP, Etc.) ☐ Other

**Your Contact Information**

CG Contact Name: _____ Phone:_____
E-mail: _____ Fax: _____

**SERT Contact Information**

Contact Info (24/7):
Duty Member Cell: (202) 327-3985
Flag Plot 1-800-323-7233
E-mail: sert.duty@uscg.mil

# Planning and Response Tools

Last Updated: 1 May 2022

| No. | Category | Location within ACP | Source | Topic | Tools | Hyperlinks | Description<br>Note: After sorting, select all (triangle at left top of screen) Home Tab>Cells>Format "AutoFit Row Height". |
|---|---|---|---|---|---|---|---|
| 1 | 1. Geographic Area | 3000 | NOAA | AOR | AOR and MOA Boundary Maps | Link | Use ERMA to view-no password needed to view this basic information. |
| 2 | 1. Geographic Area | 5000 | USACE | Charts | U.S. Army Corps of Engineers (USACE) Charts Jacksonvile District | Link | Charts and information for Texas coast from Louisiana to Mexico; an area that spans across 50,000 square miles, contains more than 1,000 miles of channels (750 shallow-draft and 250 deep-draft), serves 28 ports and 700 miles of coastline. |
| 5 | 1. Geographic Area | 5000 | | | | | |
| 6 | 1. Geographic Area | 6000 | NOAA | ESI | NOAA Environmental Sensitivity Index (ESI) Maps and Data (TX, LA, MS, AL, FL). | Link | Downloadable in various formats from NOAA website: PDF, Geodatabase format with an ArcMap document (.mxd), and GIS format. Where available, you can view ESI data or PDF maps in ERMA. |
| 7 | 1. Geographic Area | 9000 | FL | GRS | State of FL GRS/GRP | Link | Area Committees are directed by OPA and the NCP to identify environmentally, socio-economic, and otherwise sensitive areas within their defined ACP planning area. Use the link to view the GRS/GRPs for the State of Louisiana. |
| 8 | 2. Preparedness | 1000 | E-CFR | Regulation | 33 C.F.R. 155 | Link | Vessel Response Plan Requirements OPA |
| 9 | 2. Preparedness | 1000 | | Statute | 33 U.S.C § 1251 *et seq*. | Link | Clean Water Act (CWA) |
| 10 | 2. Preparedness | 1000 | | Statute | 33 U.S.C § 2701 *et seq*. | Link | Oil Pollution Act of 1990 (OPA) |
| 11 | 2. Preparedness | 1000 | E-CFR | Regulation | 40 C.F.R. 300 | Link | The National Contingency Plan (NCP) for Oil Spills and Hazardous Substance Releases |
| 12 | 2. Preparedness | 1000 | E-CFR | Regulation | 40 C.F.R. 300.324 | Link | NCP Worst Case Discharge requirements |
| 13 | 2. Preparedness | 1000 | | Statute | 42 U.S.C. § 9601 *et seq*. | Link | Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) |
| 15 | 2. Preparedness | 1000 | RRT-4 | CUBUS | CUBUS Plan | Link | Cooperation Agreement Between the United States of America and the Republic of Cuba on Preparedness for and Response to Pollution Caused by Spills of Hydrocarbons and Other Noxious and Potentially Hazardous Substances in the Gulf of Mexico and Straits of Florida. |
| 16 | 2. Preparedness | 1000 | NRT | Federal Agency | National Response Team (NRT) Website | Link | The U.S. National Response Team (NRT) provides technical assistance, resources, and coordination on preparedness, planning, response, and recovery activities for emergencies involving hazardous substances, pollutants and contaminants, oil, and weapons of mass destruction in natural and technological disasters and other environmental incidents of national significance. They also provide an abundance of information, studies, guidelines, and best practices for Oil Spill and Hazardous Substance response.<br>This site also provides links to all Regional Response Team (RRT) sites. |
| 17 | 2. Preparedness | 1000 | NRT | | Spill of National Significance (SONS) Public Affairs Reference (SPAR) | Link | Developed by the Spill of National Significance (SONS) Communications Coordination Workgroup, the SPAR provides Public Information Officers (PIOs) with a compilation of background materials, considerations, references, and agencies with the applicable subject matter experts on topics that are frequently asked about during oil spill responses. Topics include authorities, roles and responsibilities, source characteristics, response operations, human health impacts, environmental impacts, economic impacts, and remediation and restoration. The SPAR serves as a starting point for developing fact-based, robust responses to major media topics of interest and a resource to help educate new PIOs in answering questions regarding oil spill responses. |
| 18 | 2. Preparedness | 1000 | | | USCG Spill of National Significance (SONS) Policy | Link | The Coast Guard internal policy document, COMDTINST 16455.6, provides guidance to Coast Guard personnel on classifying a spill a SONS within the coastal zone per reference (a), designating a National Incident Commander (NIC), and describing roles and responsibilities of various Coast Guard staffs and commands in supporting the special challenges of a SONS. |
| 19 | 2. Preparedness | 1000 | USCG | | VRP Status Search | Link | Vessel Response Plan Status Board Search (USCG Homeport) |

# Planning and Response Tools

Last Updated: 1 May 2022

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| 20 | 2. Preparedness | 2000 | DoD | Collaboration | All Partners Access Network (APAN) * | Link | Similar to Homeland Security Information Network (HSIN) in capabilities, the All Partners Access Network (APAN) is the Unclassified Information Sharing Service (UISS) for the U.S. Department of Defense (DOD). It offers a variety of collaboration tools that can be used alone or in conjunction with other tools to plan an event, execute an exercise, or respond to a disaster. For instance, APAN is an excellent resource to facilitate meetings through Adobe Connect through a community space (the group owner must set up the Adobe Connect meeting space and can grant access to non-APAN account holders).<br>**User Accounts & Security:** APAN is unclassified and can be accessed by anyone to view publicly-accessible data. To access restricted, non-public data, users can apply for an APAN account which can be easily be set-up in less than 5 minutes.<br>Every 90 days, your password will expire. When you login, you will be prompted with a message notifying you to reset your password.<br>• If you have not logged into APAN for 6 months, your account will expire. Before this happens, you will receive an automated notification email which will prompt you to log in and change your password.<br>• If you have not logged into APAN longer than 6 months and your account is expired, you will need to contact APAN support on the website. Your account will be reviewed and reactivated based on information provided. |
| 21 | 2. Preparedness | 2000 | | PREP | National Preparedness for Response Exercise (PREP) Guidelines | Link | The National Preparedness for Response Exercise (PREP) Guidelines 2016.1 describe the minimum expectations for ensuring adequate response preparedness. |
| 22 | 2. Preparedness | 3000 | E-CFR | Regulation | 33 C.F.R. 3.40-15 | Link | Captain of the Port Zone definition: Sector New Orleans |
| 23 | 2. Preparedness | 3000 | E-CFR | Regulation | 40 C.F.R. 300.210(c)(3)(i) | Link | NCP Areas of Special Economic or Environmental Importance protection requirement |
| 24 | 2. Preparedness | 3000 | RRT-4 | MOA/MOU | EPA/USCG Boundary Line MOA | Link | Region 4 MOA establishing the boundary line between the Inland and Coastal zones (EPA/USCG boundary line) |
| 25 | 2. Preparedness | 4000 | | | Applicable LEPC Plans | Link | Under Development |
| 26 | 2. Preparedness | 4000 | | | Applicable State Plans (SERC) | Link | Under Development |
| 27 | 2. Preparedness | 5000 | NOAA | FOSC | FOSC's Guide to NOAA Scientific Support | Link | This guidebook was written for oil and chemical spill responders and Federal On-Scene Coordinators (FOSCs) and provides a quick reference to the range of scientific support services available from the NOAA Office of Research & Restoration (OR&R) through its Emergency Response Division (ERD). The guidebook is available in PDF with links to relevant files, websites and email addresses as well as a printable "booklet" version. |
| 28 | 2. Preparedness | 5000 | NOAA | | NOAA Training Link for Spill Response Professionals. | Link | NOAA's Office of Response and Restoration offers educational resources for teachers and students, as well as various classes and references for spill response professionals in local, state, and federal government agencies and industry in order to promote more efficient planning and spill response. These classes, workshops, and resources help spill responders increase their understanding of oil spill and chemical release science when analyzing spills and making risk-based decisions. |
| 29 | 2. Preparedness | 5000 | NOAA | | NOAA's Remediation of Underwater Legacy Environmental Threats (RULET) | Link | The RULET project, identifies the location and nature of potential sources of oil pollution from sunken vessels. Knowing where these vessels are helps oil response planning efforts and may help in the investigation of reported mystery spills--sightings of oil where a source is not immediately known or suspected. The sunken vessels are a legacy of more than a century of U.S. commerce and warfare. |
| 30 | 2. Preparedness | 6000 | E-CFR | Regulation | 29 C.F.R. 1910.120 | Link | Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations for Emergency Response (HAZWOPER) requirements. |
| 31 | 2. Preparedness | 6000 | E-CFR | Regulation | 30 C.F.R. 254 | Link | Outer Continental Shelf (OCS) Oil Spill Response Plans (OSRPs) Requirements OPA |
| 32 | 2. Preparedness | 6000 | E-CFR | Regulation | 33 C.F.R. 154 | Link | Marine Transfer Regulated (MTR) Facility Response Plan (FRP) Requirements OPA |
| 33 | 2. Preparedness | 6000 | E-CFR | Regulation | 40 C.F.R. 112 | Link | Facility Response Plan requirements for the Inland Zone |
| 34 | 2. Preparedness | 6000 | E-CFR | Regulation | 40 C.F.R. 300 Subpart J | Link | NCP - Subpart J (Use of Dispersants and Other Chemicals) |
| 35 | 2. Preparedness | 6000 | E-CFR | Regulation | 40 C.F.R. 300.315 | Link | National Contingency Plan documentation and cost recovery requirements |
| 36 | 2. Preparedness | 6000 | E-CFR | Regulation | 40 C.F.R. 302 Table 117.3 | Link | Reportable Quantities for Hazardous Substances |
| 37 | 2. Preparedness | 6000 | E-CFR | Regulation | 40 C.F.R.320(a)(5)(b) | Link | Terminating Cleanup Operations - Removal Completion Determination |
| 38 | 2. Preparedness | 6000 | E-CFR | Regulation | 49 C.F.R. 194 | Link | Pipeline Oil Spill Response Plan (OSRP) Requirements-DOT PHMSA |

# Planning and Response Tools

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| 39 | 2. Preparedness | 6000 | NOAA | | Characteristics of Coastal Habitats: Choosing Spill Response Alternatives for oil spills | Link | When choosing effective response options, including natural recovery, you must consider trade-offs affecting the option's potential environmental impact, its appropriateness for the habitat, and timing of its application. Environmental Considerations for Marine Oil Spill Response discusses these considerations in detail. Remember that the benefits and impacts of response options depend upon incident-specific conditions and affect the suitability of the option for use in a habitat during any spill. For example, dove-tailing multiple methods simultaneously throughout an incident might produce a more effective response and fewer adverse environmental impacts. |
| 40 | 2. Preparedness | 6000 | NOAA | | Characteristics of Response Strategies: A Guide for Spill Response Planning in Marine Environments | Link | Oil is a complex and variable natural substance. When released into the sea it can be transported long distances, undergo various physical and chemical changes, and adversely affect marine ecosystems. Oil's fate and effects depend on the type and quantity of oil spilled, properties of the oil as modified over time by physical and chemical processes, the organisms and habitats exposed, and the nature of the exposure. All of these factors should be considered when evaluating response methods. Interactions among these variables result in a large range of spill situations. Accordingly, spill responders must determine the combination of response methods that best suits the spill situation. |
| 41 | 2. Preparedness | 6000 | NRF | ESF-10 | National Response Framework's Emergency Support Function (ESF) #10 Annex – Oil and Hazardous Materials Response | Link | ESF #10 may be activated for a Stafford Act response, at the Secretary of Homeland Security's discretion, and/or in response to a request for Federal-to-Federal support. Federal response to oil or hazardous materials incidents may also be carried out under another key Federal response authority called the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), which is a regulation with the force of law found at 40 CFR Part 300. The NCP serves as an operational supplement to the NRF and may be used in conjunction with, or independent from, the Stafford Act. This annex provides an overview of both ESF #10 and NCP responses. |
| 42 | 2. Preparedness | 6000 | NRT | Public Affairs | National Response Team's (NRT) Joint Information Center (JIC) Guidelines | Link | Considering the high level of environmental awareness in many communities, any pollution incident is likely to generate interest from the public and the media. The public's perception of a response's success or failure is often determined early on in the response; this makes the need to provide the public with timely, accurate information critical. For smaller responses these efforts can be managed by a Public Information Officer or appropriate Branch Chief; however, large, more complex events will require the establishment of a Joint Information Center (JIC) to manage information access and flow. |
| 43 | 2. Preparedness | 6000 | NRT | Volunteers | National Response Team's (NRT) Use of Volunteers Guidelines for Oil Spills | Link | In times of crisis or trouble, many citizens feel compelled to help or lend their assistance and expertise to the response effort. This help can be welcome if the demands of an incident exceed the available resources or if a particular set of skills are in short supply. Volunteers can support response efforts in any number of ways such as by conducting beach surveillance, providing logistical support or assisting in the treatment of impacted wildlife. The decision to employ volunteers will take into account the benefits that might be gained weighed against safety and liability realities. |
| 44 | 2. Preparedness | 6000 | USCG | ICS | USCG Incident Management Handbook (IMH) | Link | The Coast Guard Incident Management Handbook (IMH) is designed to assist Coast Guard personnel in the use of the National Incident Management System (NIMS) Incident Command System (ICS) during response operations and planned events. It contains position job aids, forms, and other information to guide responders during an event.<br><br>The IMH is an easy to use reference that can be downloaded as an app for use on Android or Apple devices. |
| 45 | 2. Preparedness | 7000 | USCG | | Classified OSRO listings | Link | The NSFCC maintains a portion of the RRI database that allows all interested parties (no administrative access required) open access to reports about a company's Mechanical, Dispersant, Marine Fighting and Salvage and Non-Floating Oil classifications. This site also provides a point of contact report (listed by name/company number) for all the OSRO's in the United States. The mechanical classification reports can be viewed by company name, by USCG District, or by COTP zone and outline which operating environments the classification has been granted (Rivers/Canals, Nearshore, Open Ocean, Inland, etc.) and for which volume of discharge. |
| 46 | 2. Preparedness | 7000 | USCG | | Response Resource Inventory (RRI) database | Link | As part of maintaining their classification, OSROs must provide detailed lists of their response resources to the Response Resource Inventory (RRI) database. The National Strike Force Coordination Center (NSFCC) administers this database, along with the OSRO classification program. The RRI database is the backbone of the classification program and requires administrative privileges to access. Please use the attached link to contact the NSFCC to request these privileges. |
| 47 | 2. Preparedness | 8000 | E-CFR | Regulation | 40 C.F.R. 300.910(d) | Link | Emergency Chemical Countermeasure Provision |
| 48 | 2. Preparedness | | E-CFR | Regulation | 33 C.F.R. 156 | Link | Oil and Hazardous Material Transfer Operations |

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| 49 | 2. Preparedness | | E-CFR | Regulation | 33 C.F.R. 67.30.5 | Link | Obstruction lighting requirements for sunken vessels or other navigation hazards. |
| 50 | 2. Preparedness | | FEMA | Training | FEMA Emergency Management Institute Link (Reference for ICS Training) | Link | The National Preparedness online Course Catalog provides searchable, integrated information on courses provided or managed<br>by FEMA's Center for Domestic Preparedness (CDP), Emergency Management Institute (EMI), and National Training and Education<br>Division (NTED) in order to train and educate the emergency response community. |
| 51 | 2. Preparedness | | USCG | IRIS | Incident Reporting Information System (IRIS) | Link | The National Response Center (NRC) uses IRIS to collect and disseminate information on pollution, oil, chemical, radiological, biological, and other unknown discharges into the environment, as well as related non-intelligence suspicious activity and security breach incidents to federal, state, and local on-scene coordinators. The USCG is updating this Privacy Impact Assessment (PIA) to include IMSS. |
| 52 | 2. Preparedness | | EPA | | Underground Storage Tank (UST) Flood Guide | Link | In order to help improve a UST's resilience during a flood, it is important to know the potential for a flood, and its possible impacts on a UST facility and surrounding sites. This guide will outline the variety of methods for reducing a flood's impact and help UST managers assess flood risk. |
| 53 | 3. Information Sharing & Common Operating Picture (COP) | 3000 | BSEE | Federal Agency | Bureau of Safety and Environmental Enforcement (BSEE) Data Center | Link | The BSEE and BOEM Data Center allows users to access public information and data pertaining to Outer Continental Shelf Leasing, Platform, Production, Pipeline, and Exploration and Development Plan information. Data are available via online queries, as well as downloadable PDF reports, ASCII files, and scanned documents available in PDF format. Some files are available for purchase on CD/DVD/Blu-Ray media. The "Quick Data Online Query" link on the main page provides small result sets for data keys entered in for each particular subject in the Data Center. This function is intended to show new users what is available and help refine their search. |
| 54 | 3. Information Sharing & Common Operating Picture (COP) | 4000 | | | Texas General Land Office (TGLO) Toolkit | Link | The GLO Oil Spill Toolkit is a robust response tool created through a combined effort of the Texas General Land Office, U.S. Coast Guard District 8, and NOAA, as well as contributions from many other state and federal partners. The Toolkit website houses all Area Contingency Plans (ACPs) within U.S. Coast Guard District 8, maps covering Texas, Louisiana, Mississippi, Alabama, and Florida, Regional Response Team (RRT) guidance and documents, ICS Forms (in WORD, EXCEL, PDF, MAC and Spanish), Response Plans, NOAA Job Aids, SCAT Forms, Internet links, oceanographic and meteorological information, and much more. |
| 55 | 3. Information Sharing & Common Operating Picture (COP) | 5000 | NOAA | | NOAA ResponseLink * | Link | ResponseLink is a government system for sharing information and documents with incident responders. Federal personnel can email orr.incidentnews@noaa.gov to request a ResponseLink account. All other ResponseLink account requests must be sponsored through the local NOAA Scientific Support Coordinator (SSC).<br>The NOAA SSC populates spill or site specific information which allows information sharing amongst other NOAA personnel or registered users. It gives users access to response related information and documentation. Once you receive your password and login information there will be no need to continually log in. |

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| 56 | 3. Information Sharing & Common Operating Picture (COP) | 6000 | NOAA | COP | Environmental Response Management Application (ERMA) * | Link | The Environmental Response Management Application (ERMA®) is a web-based geographic information system (GIS) tool that helps emergency responders and environmental resource managers deal with incidents that may adversely impact the environment. ERMA combines real-time and static data to display a single interactive map that makes it easy for users to visualize an active environmental situation or long-term case assessment.<br>Because ERMA is web-based, users do not have to download any proprietary software onto their computers. It also offers the following advantages:<br>• It facilitates the integration and synthesis of various types of information.<br>• It provides a common operational picture to all individuals involved in a response.<br>• It improves communication and coordination among responders and stakeholders.<br>ERMA gives resource managers the information they need to make informed decisions when dealing with an incident. The maps it generates are worth the proverbial "thousand words" when communicating the status of response activities.<br>**User Accounts & Security:** ERMA can be accessed by anyone to view publicly-accessible data. To access restricted, non-public data, ERMA users who are active in the environmental response, planning, restoration, and assessment community can apply for an ERMA account. Each account request requires a NOAA Sponsor and is reviewed by an ERMA Account Admin before being approved.<br>Every 90 days, your password will expire. When you login, you will be prompted with a message notifying you to reset your password. You may change or reset your password before then by clicking the "Change Password" function at the top right of the page.<br>• If you have not logged into ERMA for 6 months, your account will expire. Before this happens, you will receive an automated email 2 weeks in advance notifying you of this occurrence and to log in again. You will also be required to create a new password.<br>• If you have not logged into ERMA longer than 6 months and your account is expired, when you try to log in, a notice will appear to contact the orr.ermaaccounts@noaa.gov email. Your account will be reviewed and reactivated based on |
| 57 | 3. Information Sharing & Common Operating Picture (COP) | | USCG | | Common Access Reporting Tool (CART) * | Link | The Common Access Reporting Tool (CART) was designed to focus U.S. Coast Guard efforts during a Marine Transportation System (MTS) interruption incident. CART is intended to positon CG units to be prepared to respond to the need for near real-time status information for efficient MTS Recovery. An event is created when significant impacts to the MTS are anticipated. CART is maintained by the Maritime Transportation Safety & Recovery Unit (MTSRU) which logs information relative to port status, MTS impacts, and essential elements of information (EEI).<br>Creating a CART account requires registration and approval.<br>Upon registration, your request is forwarded to the administrator who will email you a log in username and temporary password. At the main screen, the top menu will allow you to create or view active events. There will be drop down boxes on each event to select the area you wish to view. It is recommended to type your CART event in MS Word first, save, then paste into the appropriate cell. Also, save your work as you enter it. The system does not recognize someone typing, and it will log you out. The system logs you out without notice, and your information could be lost.<br>You will be required to log in monthly to maintain your account access |

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| 58 | 3. Information Sharing & Common Operating Picture (COP) | | DHS | Information Sharing | Homeland Security Information Network (HSIN) * | Link | The Homeland Security Information Network (HSIN) is the Department of Homeland Security's official system for trusted sharing of Sensitive but Unclassified information between federal, state, local, territorial, tribal, international, and Non-Government Organization (NGO) partners. Mission operators use HSIN to access Homeland Security data, send requests securely between agencies, manage operations, coordinate planned event safety and security, respond to incidents, and share the information they need to fulfill their missions and help keep their communities safe. Some of the features of HSIN are:<br>• Event and Incident Management<br>• Operations Support<br>• Web Conferencing (HSIN Connect)<br>• Geospatial Services<br>• Comprehensive Training<br>• Learning Management System (HSIN Learn)<br>• Alerts and Notifications<br>• Secure Messaging (HSIN Box)<br>• Instant Messaging (HSIN Chat)<br>**User Account & Security**: To obtain access to HSIN, you must be nominated into a community. Provide Mr. Carl Hatfield/Mr. Steven Woodard (District 8/SECNOLA community administrator) with your full name, email address, and EMPLID. The administrator will nominate you for access. Once approved, you will receive a follow-up email requiring additional personal information to open your account. No need to log in on a regular basis. If you forget your password, there are challenge questions you create to reset it. |
| 59 | 3. Information Sharing & Common Operating Picture (COP) | | TRG | ICS | The Incident Management Software System (IMSS) | Link | The Incident Management Software System (IMSS) integrates NIMS-compliant ICS forms and processes to assist in IAP development and incident management throughout all stages of an event. IMSS supports all functional areas of Coast Guard Incident Management, Incident Action Plan development, and incident preparedness activities. IMSS is required for use buy the CG in all functional exercises, full-scale exercises and incident responses when an IAP is developed.<br>There are circumstances that preclude the use of IMSS (i.e., the RP may be using a different software, not adequately trained personnel, internet limitations, etc.). In those situations, Incident Commanders may decide not to use IMSS (these circumstances should be documented and routed appropriately internally).<br>CG Personnel assigned to a unit Watch, Quarter, & Station Bill (WQSB) or who have a need to access IMSS should work with their unit system administrator to have a user account set up.<br>Users must be added into IMSS by a System Administrator. Users must have a personal and work email to create an account. The system administrator will create a temporary password, and the user name is normally your first initial then your last name. Three things are required to log in. Your user name, password, and Client Code. The Client Code relates to your duty location. "USCGSECTNOLA" is for Sector New Orleans. Once you log in and thereafter, you will be required to enter the authentication code . This is the two step authentication which is required by the Coast Guard. After you log in, you will be prompted to enter a numeric code which you will receive via email.<br>Use Google Chrome when operating this program. |
| 60 | 3. Information Sharing & Common Operating Picture (COP) | | USCG | | USCG Homeport * | Link | The United States Coast Guard (USCG) Homeport Internet Portal (HIP) was established in 2005 to facilitate compliance with the requirements set forth in the Maritime Transportation Security Act (MTSA) of 2002, by providing secure information dissemination, advanced collaboration, electronic submission and approval for vessel and facility security plans, and complex electronic and telecommunication notification capabilities.<br>Homeport requires a CAC login and administrative rights to make changes and upload documents. Users must submit a CGFixit Ticket for administrative rights.<br>Homeport allows you to create a site to share information and documents with your stakeholders. If the information you add is considered "Sensitive", you may add a layer of security to your site by requiring registration to prevent unauthorized users. Creating a community then allowing access to that community by registered users is completed by a system administrator. If the information you add is not "Sensitive", you may send a link out to your site and anyone may view it. Once an individual is given "System Administrator" rights, they can approve and disapprove access to the community. |

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| 61 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | 3000 | PHMSA | | DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) AskRail® User Guide & AskRail® App for Smart Device * | Link | AskRail® is a free mobile application, available through the Apple App Store and Google Play, that provides immediate access to accurate, near real-time information about railcars carrying hazardous materials on a train. It serves emergency responders who arrive first to the scene of a rail incident and helps them make informed decisions about how to respond. Note: A Windows version of AskRail® is also available for Internet Ready Devices through the AskRail® website (www.askrail.us).<br>Because certain information available through AskRail® is sensitive, only qualified users and users who have completed industry-sponsored training for emergency responders, have registered their mobile device, and have validated their email address with Railinc can gain full access to the railcar lookup functionality and "Top 125" feature. Note that the railcar lookup functionality should only be used for actual emergency situations and/or training purposes. |
| 62 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | 3000 | PHMSA | | DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) Emergency Response Guidebook (ERG) | Link | PHMSA's 2016 Emergency Response Guidebook provides first responders with a go-to manual to help deal with hazmat transportation accidents during the critical first 30 minutes. The 2016 version is the most recent version available on-line or in Mobile App version. The ERG is updated every 4 years, the next version will be in 2020 but has not been updated on the web at this time. |
| 63 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | 3000 | PHMSA | | DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) National Pipeline Mapping System * | Link | The National Pipeline Mapping System (NPMS) is a dataset containing locations of and information about gas transmission and hazardous liquid pipelines and Liquefied Natural Gas (LNG) plants which are under the jurisdiction of the Pipeline and Hazardous Materials Safety Administration (PHMSA). The NPMS also contains voluntarily submitted breakout tank data. The data is used by PHMSA for emergency response, pipeline inspections, regulatory management and compliance, and analysis purposes. It is used by government officials, pipeline operators, and the general public for a variety of tasks including emergency response, smart growth planning, critical infrastructure protection, and environmental protection.<br>This website contains:<br>•The NPMS Public Map Viewer, which allows the public to view pipeline maps in a user-selected county;<br>•PIMMA, which allows government officials and pipeline operators to view pipeline maps with additional scope and detail; and<br>•Find Who's Operating Pipelines in Your Area, which searches for pipeline operator contact information in a user-selected county, state, or ZIP code. |
| 65 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | 4000 | FDACS | State Agency | Florida Department of Agriculture and Consumer services | Link | Florida Department of Agriculture and Consumer services website. |
| 66 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | 4000 | FDEP | State Agency | Florida Department of Environmental Protection | Link | Florida Department of Environmental Protection website. Chapter 376.021 (4), Florida Statute (F.S.) designates the Florida Department of Environmental Protection (FDEP) as the lead agency in responding to all discharges of pollutants that occur in coastal waters, estuaries, tidal flats, beaches and lands adjoining the seacoast of Florida. |
| 69 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | 4000 | FWC | State Agency | Florida Fish and Wildlife Conservation Commission | Link | FWC is responsible for protecting threatened and endangered species and habitats; managing captive and nonnative wildlife; investigating fish and wildlife crimes; protecting and preserving cultural and natural resources; and protecting state lands and water quality. |
| 70 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | 4000 | SHPO | State Agency | Florida Office of Cultural Development Division of Historic Preservation | Link | Florida Office of Cultural Development Division of Historic Preservation website. The Florida SHPO works for the Division of Historic Preservation under the Florida Office of Cultural Development. The SHPO is the point of contact for Section 106 consultations in accordance with the National Historic Preservation Act. |
| 72 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | 4000 | MCSO | Local Agency | Monroe County Sheriff | Link | The Sheriff's Office provides law enforcement service to all of the Florida Keys, which include approximately 125 miles of islands branching off the southern tip of Florida. |
| 73 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | 4000 | RRT-4 | | Region 4 Regional Contingency Plan (RCP) Volume 1 | Link | Region 4 Regional Contingency Plan Volume 1. |

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| 76 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | 5000 | NIOSH/CDC | Chemical Assessment | Pocket Guide to Chemical Hazards/The National Institute for Occupational Safety and Health (NIOSH)/Centers for Disease Control (CDC) | Link | The NIOSH Pocket Guide to Chemical Hazards (NPG) informs workers, employers, and occupational health professionals about workplace chemicals and their hazards. The NPG gives general industrial hygiene information for hundreds of chemicals/classes. The NPG clearly presents key data forchemicals or substance groupings (such as cyanides, fluorides, manganese compounds) that are found in workplaces. The guide offers key facts, but does not give all relevant data. The NPG helps users recognize and control workplace chemical hazards. |
| 77 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | 5000 | HHS | Federal Agency | Agency for Toxic Substance and Disease Registry (ATSDR) | Link | HHS through the Agency for Toxic Substance and Disease Registry (ATSDR), serves the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and disease related to toxic substances. These include public health assessments of waste sites, health consultations concerning specific hazardous substances, health surveillance and registries, response to emergency release of hazardous substances, applied research in support of public health assessments, information development and dissemination, and education and training concerning hazardous substances. |
| 78 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | 5000 | NOAA | | NOAA Aerial Observer Checklist | Link | Aerial Oil Observation Checklist Job Aid to use in conjunction with NOAA Job Aid for Aerial Observation. |
| 79 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | 5000 | NOAA | | NOAA Open Water Oil Identification Job Aid for Aerial Observation | Link | An important step in oil spill response is assessing color/appearance and structure/distribution of oil spilled on the water. This information is used by the Incident Command to prioritize response efforts and direct cleanup resources. This aid was created to help you perform efficient assessments and communicate your findings effectively. It is intended that the terminology and codes presented in this Job Aid will promote consistency among observers nationwide. |
| 80 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | 5000 | NOAA | | NOAA Shoreline Assessment Manual | Link | NOAA's Shoreline Assessment Manual describes SCAT team members, Shoreline Cleanup and Assessment Technique (SCAT) roles and responsibilities, the methods and processes for conducting shoreline assessment, and using the results to make cleanup decisions at oil spills. |
| 81 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | 6000 | NOAA | | NOAA Shoreline Assessment Job Aid | Link | NOAA published the Shoreline Assessment Manual (Report No. HAZMAT 97-4) which outlines methods for planning and conducting shoreline assessment and incorporating the results into the decision-making process for shoreline cleanup at oil spills. This job aid was developed to supplement the manual, providing a visual guide to many of the terms used during shoreline assessments. |
| 82 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | 10000 | DOI | | Information Planning and Consultation (IPaC) * | Link | IPaC is a project planning tool which streamlines the USFWS environmental review process and provides updated species lists. Use this tool to see if any listed species, critical habitat, migratory birds, or other natural resources may be impacted by your project.<br>Follow IPaC's Endangered Species Review process—a streamlined, step-by-step consultation process available in select areas Louisiana (other states to follow in the near future) for certain project types, agencies, and species. Also, receive conservation measures recommended by U.S. Fish and Wildlife Service biologists to avoid, minimize, or mitigate effects to listed species. Full use of the tool's screening capabilities require creation of a free account to gain access to the Project Review and use of the Species Determination Keys. Chrome Browser works best with this application. |
| 83 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | | | | Chemical Hazard Response Information System (CHRIS) Manual | Link | The Chemical Hazards Response Information System (CHRIS) is designed to provide information needed for decision-making by responsible Coast Guard personnel during emergencies that occur during the water transport of hazardous chemicals. CHRIS also provides much information that can be used by the Coast Guard in its efforts to achieve better safety procedures and prevent accidents. CHRIS consists of a handbook or manual, a hazard assessment computer system (HACS), and technical support personnel located at Coast Guard headquarters. These components and their relations to one another are described in Section 2 of this manual. This manual is available in pdf format on the Homeland Security Digital Library. |
| 84 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | | | Local Agency | Marathon EOC | Link | (305) 289 6012 Shannon Weiner |

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| 93 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | | USCG | | USCG List of Oils | Link | This list of oils is organized alphabetically into several subgroups. Crude oil and refined petroleum products are among the most familiar types of oils. Petroleum and fuel oil are specifically named in the Clean Water Act (CWA) definition of oil. Edible animal and vegetable oils and other oils of animal or vegetable origin have historically been considered CWA oils. Other non-petroleum oils are substances that have the properties and behavior of traditional oils and have historically been considered to be oils. Lube-oil additives are included in the list of oils because they may be shipped or stored in an oil medium. Some substances that have not been considered oils historically may be added to this list in the future if they are determined to have oil-like characteristics. |
| 94 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | | USCG | | USCG Marine Safety Lab Link/Sampling Guide | Link | The Marine Safety Laboratory (MSL) is the Coast Guard's sole forensic laboratory for oil pollution investigations. Samples collected by field units are submitted to MSL to determine if a relationship exists between the spilled oil sample(s) and the suspected source sample(s). Samples may also be analyzed to determine the path of discharge during the alleged bypass of oil filtration equipment and to identify an unknown petroleum product in the environment. The MSL Sampling Guide outlines the protocol for oil sampling and submission to MSL. |
| 95 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | | | | Wireless Information System for Emergency Responders (WebWISER) | Link | WISER is a system designed to assist emergency responders in hazardous material incidents. WISER provides a wide range of information on hazardous substances, including substance identification support, physical characteristics, human health information, and containment and suppression advice. |
| 96 | 4. Discovery, Notifications, Preliminary Assessment and Initiation of Action | | USCG | | Sector Command Center | Link | (305) 292-8727 |
| 97 | 5. Technical Support to the FOSC | 1000 | RRT-4 | | Regional Response Team 4 (RRT-4) | Link | The functional role of RRTs in each federal region has two principal components. One component is the standing team whose duties involve communications systems and procedures, planning, coordination, training, evaluation, preparedness, and related matters within each RRT's respective region. The second component of the RRT is an incident-specific team that may be assembled, as determined by the operational requirements of a response to a specific discharge or release. |
| 98 | 5. Technical Support to the FOSC | 5000 | NOAA | | Areal Locations of Hazardous Atmospheres (ALOHA) | Link | Areal Locations of Hazardous Atmospheres (ALOHA) is a hazard model that estimates how a chemical cloud travels in the air after a spill and identifies areas where a threat to people may exist. It also models some types of fires and explosions. Note the link takes you to an ALOHA Fact Sheet. There is a link on the second page that takes you to a page that allows you to actually download the software. May not work on CG workstations. |
| 99 | 5. Technical Support to the FOSC | 5000 | NOAA | | Automated Data Inquiry for Oil Spills (ADIOS®) | Link | ADIOS® is NOAA's oil weathering model. It's an oil spill response tool that models how different types of oil weather (undergo physical and chemical changes) in the marine environment. This program is available for download on the CG Enterprise system. |
| 100 | 5. Technical Support to the FOSC | 5000 | USFWS | | Best Practices for Migratory Bird Care during Oil Spill Response | Link | National "best practices" using established protocols for keeping unoiled birds away from an oil spill and for dealing with oiled birds. Establishes a standardized approach to help protect wildlife resources, enables On-Scene Coordinators (OSCs) to focus on other aspects of spill response, and helps instill public confidence in overall response activities. |
| 101 | 5. Technical Support to the FOSC | 5000 | DOI | | Bureau of Safety and Environmental Enforcement (BSEE) | Link | The Bureau of Safety and Environmental Enforcement (BSEE) works to promote safety, protect the environment, and conserve resources offshore through vigorous regulatory oversight and enforcement. BSEE's Offshore Regulatory Program develops standards and regulations to enhance operational safety and environmental protection for the exploration and development of offshore oil and natural gas on the U.S. Outer Continental Shelf (OCS). |
| 102 | 5. Technical Support to the FOSC | 5000 | HHS | Federal Agency | Centers for Disease Control and Prevention (CDC) | Link | Public Health Technical Specialists from the HHS Centers for Disease Control and Prevention (CDC) and ATSDR can assist with environmental health support. Environmental Health Support Guidance for Texas and Louisiana is located in Appendix 8 of Volume 2. |
| 103 | 5. Technical Support to the FOSC | 5000 | NFPA | | Certified Marine Chemist (CMC) | Link | The United States Coast Guard and the Occupational Safety and Health Administration require that a certificate issued by a Marine Chemist must be obtained before hot work or fire producing operations can be carried out in certain spaces aboard a marine vessel. In complying with both the U.S. Coast Guard and OSHA regulations, a Marine Chemist applies the requirements contained in National Fire Protection Association Standard 306. |

# Planning and Response Tools

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| No. | Category | Location within ACP | Source | Topic | Tools | Hyperlinks | Description<br>Note: After sorting, select all (triangle at left top of screen) Home Tab>Cells>Format "AutoFit Row Height". |
|---|---|---|---|---|---|---|---|
| 104 | 5. Technical Support to the FOSC | 5000 | NOAA | | Computer-Aided Management of Emergency Operations (CAMEO®) Chemicals | Link | CAMEO Chemicals is a program with response recommendations and physical properties for thousands of hazardous substances and it also includes a tool for predicting possible hazards that could occur if chemicals mix. The program is available is several formats, including a CAMEO Chemicals app for iOS and Android. |
| 105 | 5. Technical Support to the FOSC | 5000 | NOAA | | Computer-Aided Management of Emergency Operations (CAMEO®) software suite | Link | The CAMEO® (Computer-Aided Management of Emergency Operations) software products have been valuable hazardous substance response and planning tools since the first products were introduced in 1986.<br>The CAMEO software suite consists of four core programs: CAMEOfm, CAMEO Chemicals, ALOHA®, and MARPLOT®. These applications can be used together or separately, but when they are used together, the programs interact seamlessly and information can be linked easily between them.<br>In addition to these core programs, there are several other programs that can be used with the CAMEO software suite. |
| 106 | 5. Technical Support to the FOSC | 5000 | EPA | Federal Agency | EPA Chemical, Biological, Radiological, and Nuclear (CBRN) Consequence Management Advisory Division (CMAD) | Link | Following a hazardous release or discharge, natural resource trustees have responsibilities for assessing resulting injury to the environment. NRDA is the process by which trustees collect, compile, and evaluate data to determine the extent of injury to natural resources. The information gathered is used to assess damages, determine the restoration required to compensate for the injured natural resources and lost use of resources, and seek recovery of those damages from the RP. NRDAs are typically initiated concurrent with response activities. |
| 107 | 5. Technical Support to the FOSC | 5000 | EPA | Federal Agency | EPA Environmental Response Team (ERT) | Link | The ERT provides Scientific Support Coordinators (SSC) with expertise in treatment technology, biology, chemistry, hydrology, geology, and engineering. The ERT also has access to special decontamination equipment and can provide advice on a wide range of issues such as a multimedia sampling and analysis program, on-site safety (including development and implementation plans), cleanup techniques and priorities, water supply decontamination and protection, application of dispersants, environmental assessment, degree of cleanup required, and disposal of contaminated material. |
| 108 | 5. Technical Support to the FOSC | 5000 | EPA | Federal Agency | EPA Radiological Emergency Response (RERT) Team | Link | The RERT provide on-site support including mobile monitoring laboratories for field analysis of samples, as well as fixed laboratories for radiochemical sampling and analyses. Request for support may be made 24 hours a day via the NRC or directly to the EPA Radiological Response Coordinator in the Office of Radiation Programs (ORP). |
| 109 | 5. Technical Support to the FOSC | 5000 | DOJ | Federal Agency | Federal Bureau of Investigation (FBI) National Security Branch | Link | The FBI, under the DOJ, is the lead federal agency for responding to threats from weapons of mass destruction (WMD). The Bureau investigates and collects intelligence on WMD-related threats and incidents to prevent attacks and respond to them when they occur. WMD Directorate (WMDD) is part of the FBI's National Security Branch. The WMDD leads the FBI's efforts to mitigate threats from chemical, biological, radiological, nuclear, or explosive weapons. |
| 110 | 5. Technical Support to the FOSC | 5000 | NOAA | | General NOAA Operational Modeling Environment (GNOME) suite & related programs | Link | GNOME (General NOAA Operational Modeling Environment) is the modeling tool the Office of Response and Restoration's (OR&R) Emergency Response Division uses to predict the possible route, or trajectory, a pollutant might follow in or on a body of water, such as in an oil spill. |
| 111 | 5. Technical Support to the FOSC | 5000 | NOAA | | Mapping Application for Response, Planning, and Local Operational Tasks (MARPLOT) | Link | Mapping Application for Response, Planning, and Local Operational Tasks (MARPLOT) is a GIS-based mapping program that can be used with ALOHA. |
| 112 | 5. Technical Support to the FOSC | 5000 | National Guard | State Agency | National Guard Civil Support Teams (CST) | Link | CSTs were created in 1999 to respond to terrorist incidents involving WMD, as well as other disasters and catastrophic events, both natural and man-made. There are 57 CSTs located throughout the United States, with at least one in each state and territory. |
| 113 | 5. Technical Support to the FOSC | 5000 | HHS | Federal Agency | National Institute for Occupational Safety and Health (NIOSH) | Link | In response to requests from workers (or their representatives), employers, and other government agencies, NIOSH Health Hazard Evaluation scientists conduct workplace assessments to determine if workers are exposed to hazardous materials or harmful conditions and whether these exposures are affecting worker health. NIOSH evaluates the workplace environment and health of employees by reviewing records and conduction on-site environmental sampling, epidemiologic surveys, and medical testing. See item #61 of this document for access to the NIOSH Pocket Guide. |
| 114 | 5. Technical Support to the FOSC | 5000 | NOAA | Federal Agency | National Oceanic and Atmospheric Administration (NOAA) | Link | NOAA provides scientific support for response and contingency planning in coastal and marine areas, including assessments of the hazards that may be involved, predictions of movement and dispersion of oil and hazardous substances through trajectory modeling, and information on the sensitivity of coastal environments to oil and hazardous substances. |

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|---|---|---|---|---|---|---|---|
| 115 | 5. Technical Support to the FOSC | 5000 | USCG | Federal Agency | National Strike Force Coordination Center (NSFCC) | Link | The NSFCC manages the NSF which is authorized as the National Response Unit required under OPA, with responsibility for administering the USCG Strike Teams, maintaining response equipment inventories and logistical networks, and conducting national exercise programs including pollution response exercises. |
| 116 | 5. Technical Support to the FOSC | 5000 | NTSB | Federal Agency | National Transportation Safety Board (NTSB) | Link | The National Transportation Safety Board is an independent federal agency dedicated to promoting aviation, railroad, highway, marine, pipeline and hazardous materials safely. In accordance with the CG/NTSB MOU and 46 C.F.R. 4.40-15(b), the NTSB shall conduct the investigation of certain major marine and public/nonpublic vessel casualties. Except for the preliminary investigation, a separate Coast Guard casualty investigation will not be conducted, nor will parties in interest be designated by the Coast Guard. Although these investigations are conducted by the NTSB in accordance with their procedures, the Coast Guard will participate fully as a party. |
| 117 | 5. Technical Support to the FOSC | 5000 | NWS | Federal Agency | National Weather Service (NWS) | Link | NWS is a federal organization within NOAA, can provide various types of support to an IC/UC. SWLA uses the Slidell, LA office. |
| 118 | 5. Technical Support to the FOSC | 5000 | EPA | | Natural Resource Trustees (CERCLA) | Link | CERCLA and OPA authorize the United States, states, and Indian Tribes to act on behalf of the public as Natural Resource Trustees for natural resources under their respective trusteeships. OPA also authorizes foreign governments to act as Trustees. |
| 119 | 5. Technical Support to the FOSC | 5000 | USCG | | Natural Resource Trustees (OPA) | Link | CERCLA and OPA authorize the United States, states, and Indian Tribes to act on behalf of the public as Natural Resource Trustees for natural resources under their respective trusteeships. OPA also authorizes foreign governments to act as Trustees. |
| 120 | 5. Technical Support to the FOSC | 5000 | NOAA | | NOAA Data Integration, Visualization, Exploration, and Reporting (DIVER) Explorer | Link | NOAA and its partner agencies often collect and maintain a large amount of data to document the location and extent of injuries to the environment. To determine impacts from an incident, samples may be taken from air, water, sediment, oil, and even tissue from wildlife. Field teams may also record environmental conditions (e.g., water temperature, salinity, and oxygen levels) and visual observations (e.g., vegetation density, wildlife counts, and indicators of wildlife heath).<br>The Data Integration, Visualization, Exploration, and Reporting (DIVER) tool was developed by NOAA to support these Natural Resource Damage Assessment (NRDA) efforts. |
| 121 | 5. Technical Support to the FOSC | 5000 | NOAA | Fisheries | NOAA Fisheries Final Policies and Best Practices-Standards for Release | Link | The purposes of the NOAA Fisheries Final Policies and Best Practices-Standards for Release are as follows:<br>1. To provide guidance for determining release of rehabilitated marine mammals to the wild including marine mammal species under the jurisdiction of the NMFS (Department of Commerce) and those under the jurisdiction of the FWS (Department of the Interior);<br>2. To state the NMFS and FWS legal requirements and provide recommendations for medical, behavioral, and developmental assessment of rehabilitated marine mammals prior to release;<br>3. To identify the persons and agencies responsible for completing an assessment of a rehabilitated marine mammal for a release determination and to describe the communication requirements and process with NMFS or FWS;<br>4. To state the NMFS and FWS requirements and recommendations for identification of releasable rehabilitated marine mammal, selection of a release site, and post-release monitoring; and<br>5. This document does not include guidance for the following situations:<br>a. Immediate release following health assessment and/or emergency triage typically associated with mass stranding events, out of habitat rescues, and disentanglement efforts.<br>b. Release following relocation of healthy marine mammals. |
| 122 | 5. Technical Support to the FOSC | 5000 | NOAA | | NOAA Marine Mammal Health and Stranding Response Program | Link | The Marine Mammal Health and Stranding Response Program coordinates emergency responses to sick, injured, distressed, or dead seals, sea lions, dolphins, porpoises, and whales. The 1992 Amendments to the Marine Mammal Protection Act formalized this program and designated NOAA Fisheries' Office of Protected Resources as the lead agency to coordinate related activities. The program focuses on four primary areas:<br>•Stranding and entanglement networks.<br>•Unusual mortality event response.<br>•Biosurvelliance and baseline health research.<br>•John H. Prescott Marine Mammal Rescue Assistance Grant Program. |
| 123 | 5. Technical Support to the FOSC | 5000 | NOAA | SSC | NOAA Scientific Support Coordinator (SSC) | Link | The SSC, in accordance with the National Contingency Plan, will provide the FOSC scientific advice with regard to the best course of action during a spill response. The SSC will help facilitate consensus from the Federal Natural Resource Trustee Agencies and provide spill trajectory analysis data, information on the resources at risk, weather information, tidal and current information, etc. |

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|---|---|---|---|---|---|---|---|
| 124 | 5. Technical Support to the FOSC | 5000 | NOAA | | NOAA Trajectory Analysis Handbook | Link | The NOAA Trajectory Analysis Handbook provides an overview of the physical processes that affect oil movement and behavior in the marine environment. Trajectory analysis is most often done using computer models to keep track of complex, interacting processes. However, by using this guide, even without a computer-based model, you can estimate the time and length scale of an event. This guide helps responders and planners understand physical processes and potential uncertainties as they incorporate trajectory analysis into the response. |
| 125 | 5. Technical Support to the FOSC | 5000 | NOAA | | NOAA Web Chemical Aquatic Fate and Effects (CAFE) & CAFE Database | Link | The Chemical Aquatic Fate and Effects (CAFE) Database is a software program you can use to estimate the fate and effects of thousands of chemicals, oils, and dispersants. CAFE serves as a tool to help responders in their assessment of environmental impacts from chemical or oil spills on aquatic environments. Using CAFE, you can choose between four different spill scenarios: chemical, oil only, dispersant only, and dispersants mixed with oil. |
| 126 | 5. Technical Support to the FOSC | 5000 | NOAA | | Pinniped and Cetacean Oil Spill Response Guidelines: Marine Mammal Oil Spill Response Guidelines | Link | These Guidelines provide a foundation for coordination and communication between local, state and federal oil spill response agencies and the marine mammal conservation, research and welfare communities (including marine mammal stranding networks and research scientists). More specifically, these Guidelines provide key information to, and standardize activities of, marine mammal responders to build and maintain oiled wildlife readiness at a national level, including:<br>•Outlining organizational and reporting structures/instructions so that wildlife professionals can effectively integrate and contribute to the oil spill response framework;<br>•Establishing standardized data collection techniques to support effective response activities (as well as subsequent natural resource damage assessment);<br>•Defining chain-of-custody protocols for animal collection, necropsy and sampling to help ensure integrity of samples and results, as well as their admissibility in any legal proceedings;<br>•Instituting training requirements or the protection of human and animal health during oil spill response; and<br>•Promoting the best achievable care for oiled marine mammals, including necessary readiness activities (e.g., training, equipment). |
| 127 | 5. Technical Support to the FOSC | 5000 | USCG | | Public Information Assist Team (PIAT) | Link | PIAT is an element of the NSFCC staff available to assist the FOSC to meet the demands for public information during a response or exercise. Its use is encouraged any time the FOSC requires outside public affairs support. Requests for PIAT assistance may be made through the NSFCC or NRC. |
| 130 | 5. Technical Support to the FOSC | 5000 | DOE | | U.S. Department of Energy (DOE) Office of Petroleum Reserves (OPR) | Link | The DOE Office of Petroleum Reserves (OPR) oversees the Strategic Petroleum Reserve (SPR), the world's largest supply of emergency crude oil, which was established primarily to reduce the impact of disruptions in supplies of petroleum products and to carry out obligations of the United States under the international energy program. |
| 131 | 5. Technical Support to the FOSC | 5000 | DOI | | U.S. Department of the Interior (DOI) Regional Environmental Officer (REO) | Link | The U.S. Department of the Interior (DOI) has jurisdiction over the National Park System, National Wildlife Refuges, fish hatcheries, and public lands. The Regional Environmental Officer (REO) manages the department's response programs for oil and hazardous materials spills and oversees the department's responsibilities as a trustee for natural resources. |
| 132 | 5. Technical Support to the FOSC | 5000 | USDA | | U.S. Department of Agriculture | Link | The U.S. Department of Agriculture (USDA) has scientific and technical capability to measure, evaluate, and monitor, either on the ground or by use of aircraft, situations where natural resources including soil, water, wildlife, and vegetation have been impacted by hazardous substances and other natural or man-made emergencies. USDA maintains trusteeship of national forest, wilderness areas, and wildlife within USDA-controlled forests, archaeological sites, range and farm lands, fisheries, and lands enrolled in the Wetlands Reserve Program. Additionally, the USDA plays a key role in the closing and re-opening of fisheries before, during, and after clean-up operations. |
| 133 | 5. Technical Support to the FOSC | 5000 | DOJ | | U.S. Department of Justice (DOJ) | Link | The U.S. Department of Justice (DOJ) can provide expert legal advice on complicated legal questions arising from discharges or releases and federal agency responses. The DOJ represents the federal government, including its agencies, in litigation relating to discharges. |
| 134 | 5. Technical Support to the FOSC | 5000 | DOT | | U.S. Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) | Link | The U.S. Department of Transportation (DOT) provides response expertise pertaining to transportation of oil, or hazardous substances, by all modes of transportation. Through the Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT-PHMSA offers expertise in the requirements for packaging, handling, and transporting regulated hazardous materials. |

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| 135 | 5. Technical Support to the FOSC | 5000 | EPA | | U.S. EPA Criminal Investigations Division (CID) | Link | The EPA's Criminal Investigation Division (CID) investigates allegations of criminal wrongdoing prohibited by various environmental statutes. Such investigations involve, but are not limited to, the illegal disposal of hazardous waste; the export of hazardous waste without the permission of the receiving country; the illegal discharge of pollutants to a water of the United States, and the removal and disposal of regulated asbestos containing materials in a manner inconsistent with the law and regulations. |
| 136 | 5. Technical Support to the FOSC | 5000 | DOI | | U.S. Fish and Wildlife Service (USFWS) | Link | USFWS, an office within DOI, is responsible for management of migratory birds, federally listed endangered and threatened species, and interjurisdictional fishes within SETX and SWLA. When a spill occurs, the appropriate USFWS office(s)—in Texas and Louisiana—will provide timely advice on measures necessary to protect wildlife from exposure, as well as priority and timing of such measures. Protective measures may include preventing the oil from reaching areas where migratory birds and other wildlife are located, or deterring birds or other wildlife from entering areas by using wildlife hazing devices or other methods. |
| 137 | 5. Technical Support to the FOSC | 5000 | USGS | | U.S. Geological Survey (USGS) | Link | USGS maintains expertise in water quality characterization, oil fingerprinting, submerged oil and oil-particle formation, transport and resuspension of oil in fresh waters, riverine two-dimensional (2D) particle transport/hydrodynamic simulations, ecotoxicology, time-of-travel studies for freshwater systems, as well as geospatial data collection of visible spill plumes applicable to spill response events in freshwater environments. In addition, USGS can provide biological survey assistance for natural resources and contaminants, and contribute distribution information about sensitive species (e.g., birds, invertebrates). |
| 138 | 5. Technical Support to the FOSC | 5000 | USN | | U.S. Navy Supervisor of Salvage (SUPSALV) | Link | SUPSALV has an extensive salvage/search and recovery equipment inventory, and the requisite knowledge and expertise to support these operations, including specialized salvage, firefighting, and petroleum, oil, and lubricants offloading capability even in open sea response incidents. The FOSC may request assistance directly from SUPSALV. |
| 139 | 5. Technical Support to the FOSC | 5000 | USCG | | USCG Incident Management Assistance Team (IMAT) | Link | The Incident Management Assistance Team (IMAT) was developed by the USCG to supply a ready-made team of Incident Command System, highly trained individuals to assist the local Incident Commander in dealing with a major incident. The IMAT is located in Norfolk, VA. The team is trained for initial quick response to a regional or nationally significant event. The team consists of ICS process experts that can quickly set-up and assist in transitioning from the initial emergency phase to a more sustained planning process. |
| 140 | 5. Technical Support to the FOSC | 5000 | USCG | | USCG Investigative Service (CGIS) | Link | CGIS Agents are available to investigate criminal violations of environmental laws enforced by the Coast Guard. CGIS should be notified and consulted regarding all cases that may be referred to the Department of Justice for criminal prosecution. CGIS Agents are trained criminal investigators who are familiar with the legal issues associated with prosecution of a criminal case. |
| 141 | 5. Technical Support to the FOSC | 5000 | USCG | | USCG National Strike Force (NSF) | Link | The National Strike Force's (NSF) mission is to provide highly trained, experienced personnel and specialized equipment to Coast Guard and other federal agencies to facilitate preparedness and response to oil and hazardous substance pollution incidents in order to protect public health and the environment. The NSF's area of responsibility covers all Coast Guard Districts and Federal Regions. |
| 142 | 5. Technical Support to the FOSC | 5000 | USCG | | USCG Strike Teams | Link | The three USCG Strike Teams are available 24 hours a day. If the Strike Team contacted is already committed, another Strike Team will be deployed. Each Strike Team maintains trained personnel and specialized equipment to assist with training in responding to spills, stabilizing and containing spills, and monitoring and/or directing response actions of the RPs and/or contractors. The Gulf Strike Team, based in Mobile, Alabama provides response coverage to Texas and Louisiana. |
| 143 | 5. Technical Support to the FOSC | 6000 | USCG | Finance | NPFC Claims Forms & Documents | Link | NPFC's guidance documents and forms related to submitting claims for damages and uncompensated removal costs under the Oil Pollution Act (OPA) of 1990. |
| 144 | 5. Technical Support to the FOSC | 6000 | RRT-4 | | Coordinating Natural Resource Damage Assessment (NRDA) with the Response | Link | Following a hazardous release or discharge, natural resource trustees have responsibilities for assessing resulting injury to the environment. NRDA is the process by which trustees collect, compile, and evaluate data to determine the extent of injury to natural resources. The information gathered is used to assess damages, determine the restoration required to compensate for the injured natural resources and lost use of resources, and seek recovery of those damages from the RP. NRDAs are typically initiated concurrent with response activities. |
| 145 | 5. Technical Support to the FOSC | 7000 | CGA | | Oil Spill Response Cooperatives and Consortiums - Clean Gulf Associates | Link | Clean Gulf Associates website. |

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| 146 | 5. Technical Support to the FOSC | 7000 | HWCG | | Oil Spill Response Cooperatives and Consortiums - HWCG LLC | Link | HWCG is a consortium of deepwater operators and non-operators committed to building the safest, most comprehensive and fastest possible response system through extensive industry collaboration and mutual aid. |
| 147 | 5. Technical Support to the FOSC | 7000 | MWCC | | Oil Spill Response Cooperatives and Consortiums - Marine Well Containment Company | Link | Marine Well Containment Company (MWCC) is an independent company founded in 2010 to address the need for a deepwater well containment response capability in the U.S. Gulf of Mexico. Headquartered in Houston, Texas, MWCC employs a mix of experienced engineers and crisis response specialists well-versed in the technical world of offshore operations and incident response. MWCC is a not-for-profit operation consisting of 10 member companies. Our members are some of the world's largest offshore deepwater operators and make up roughly 70 percent of drilling activity in the deepwater U.S. Gulf of Mexico. |
| 148 | 5. Technical Support to the FOSC | 7000 | | | Oil Spill Response Cooperatives and Consortiums - Oil Spill Response Limited | Link | Oil Spill Response Limited website. |
| 149 | 5. Technical Support to the FOSC | 7000 | | | Oil Spill Response Cooperatives and Consortiums - Wild Well Control | Link | Wild Well Control website. |
| 150 | 5. Technical Support to the FOSC | 8000 | NOAA | | Alternative Response Tool Evaluation System (ARTES) | Link | To aid in evaluating non-conventional alternative countermeasures in particular, the Alternative Response Tool Evaluation System (ARTES) was developed. ARTES can also be used to evaluate proposed conventional countermeasures. It is designed to evaluate potential response tools on their technical merits, rather than on economic factors. ARTES is designed to work in concert with the National Contingency Plan (NCP) Product Schedule and the Selection Guide for Oil Spill Response Countermeasures.<br>Under ARTES, an Alternative Response Tool Team (ARTT) rapidly evaluates a proposed response tool and provides feedback to the OSC in the form of a recommendation. The OSC then can make an informed decision on the use of the proposed tool. A set of forms for use in the process can be accessed on the website. |
| 151 | 5. Technical Support to the FOSC | | EPA | | EPA CompTox Chemical Dashboard | Link | The EPA CompTox Chemical Dashboard is a one-stop-shop for chemistry, toxicity and exposure information for over 875,000 chemicals. Data and models within the Dashboard also help with efforts to identify chemicals of most need of further testing and reducing the use of animals in chemical testing. |
| 152 | 6. Containment, Countermeasures, Clean-up, Disposal, Documentation & Cost Recovery | 5000 | NOAA | ART | NOAA Dispersant Application Observer Job Aid | Link | This job aid was prepared as a companion guide for individuals who have completed training in dispersant application observation. It is designed to be a refresher on observing and identifying dispersed and undispersed oil, describing their characteristics, and reporting this information to decision-makers. We recommend that this book be used with the Open Water Oil Identification Job Aid for Aerial Observation to help describe both surface oil and dispersed oil. |

# Florida Keys
# Area Contingency Plan
# (FKACP)

## Response Protocols: Volunteers

# Annex G

May 2022

## Record of Changes

| Change Number | Change Description | Section Number | Change Date | Name |
|---|---|---|---|---|
| 1 | | | | |
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# Table of Contents

# 1000 Introduction

The demands of an incident may exceed the resources of government organizations. Volunteers can support response efforts in many ways, but the use of volunteers during an oil spill response is not automatic. Volunteer use requires deliberate planning and an organized effort to ensure that the use of volunteers benefits the response effort and is done so safely and within existing authorities.

This annex provides access to the National Response Team (NRT) Use of Volunteers Guidelines for Oil Spills which outlines in detail how the FOSC may use the services of volunteers during a response. The use of volunteers must be in accordance with statutory authorities and other applicable laws. The Incident Command/Unified Command should make the volunteer use decision on a case-by-case basis, weighing the interests of the local volunteer community and benefits of volunteer efforts against health and safety concerns, resources needed for volunteer supervision and training, liability concerns, and other relevant issues. The NRT Use of Volunteers Guidelines for Oil Spills was developed in response to incident lessons learned and contains information, examples, and tools to help with everything from coordination and outreach, to organization and oversight, and also includes tips on avoiding some of the potential issues associated with utilizing a volunteer workforce. Though this document is comprehensive in nature, it is a guidance document and was not designed to preclude any existing laws or agency-specific policies. For these resources and guidance please refer to the National Response Team (NRT) Use of Volunteers Guidelines for Oil Spills.

This annex also includes locally developed tools, a volunteer assignment guide as well as other volunteer coordination resource listings

# 1100 Use of Volunteers during a Pollution Incident

The following is a pre-established list of how volunteers may be utilized during an incident; the UC may however need to perform a risk-benefit analysis in order to determine if properly trained volunteers may be used for tasks not specified on this list. At a minimum, all volunteers are required to attend a 2-hour Workplace Health and Safety Training and Site Safety Training, prior to conducting any work. In addition to the various possible volunteer assignments listed are include requisite skill sets and training requirements associated with each of the positions.

## 1101 Accounts Specialist

Responsibilities:

- Maintains files and accounts of expenses attributable to the volunteer effort
- Communicates with Finance Section to determine accounting needs and system to be used

Skills Required:

- Must be detail oriented; experienced with 10-key data entry and be familiar with common computer software accounting and spreadsheet systems

Training Required:

- 2-Hour Workplace Health and Safety Training, Site Safety

## 1102 Administrative Coordinator/Office Manager

Responsibilities:

- Oversees office administration activities
- Supervises work of file and data specialists
- Oversees development, maintenance and accuracy of computer and paper files of volunteer records
- Procures and distributes reports and provides updates to the VUL as required

Skills Required:

- Good working knowledge of computer work processing and spreadsheet software, as well as excellent organizational, supervisory, and communication skills.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety.

## 1103 Command Center Administrative Specialist

Responsibilities:

- Provides backup and supplemental skills for IC/UC Command Center staff.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety.

## 1104 Communications Specialist

Responsibilities:

- Established and maintains the volunteer communication plan
- Tests and sustains communication equipment and bulletin board
- Compiles updates of volunteer needs

Skills Required:

- Public commutations background with knowledge of local communications and systems preferred.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety.

## 1105 Computer Operator

Responsibilities:

- Enter personnel information into established computer database

Skills Required:

- Familiarity with computer use.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety.

## 1106 Crowd Control/Site Security

Responsibilities:

- Work in cooperation with law enforcement officers to set up police barricades as long as the work does not involve physical contact with onlookers
- Oversee access points to ensure only authorized persons enter and habitat is protected

- Boat operators direct other vessels away from contaminated areas while allowing work vessels in. (Boat operators will not be allowed in the hot zone.)
- Boat operators transport assessment teams or cleanup crews in areas outside the hot zone
- Direct volunteers to appropriate information sites

Skills Required:

- Experience in oil and storm-spotting and law enforcement preferred. Experience in boat operations if applicable. Must be able to lift 35 lbs.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety.

## 1107 Data Entry Specialist

Responsibilities:

- Enters information into established computer databases(s)

Skills Required:

- Familiarity with computer use. Particular software may be taught on the job if necessary.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety.

## 1108 Documentation Unit Worker

Responsibilities:

- Maintains accurate, up-to-date volunteer related files
- Maintains and store documentation which includes reports, training, communication logs, injury claims, situation status reports, and documentation from the following Volunteer Unit entities: Interviewer, Liaison Chief, Medical Unit Worker, Orientation and Training Coordinator, Photographer, PIO, Safety Officer Assistant, Scheduler/Time Card Assistant.
- Ensures each section is maintaining and providing appropriate documents (including volunteer signatures)
- Receives, complies, and organizes all volunteer-related paperwork and training
- Stores files for legal, analytical, and historical purposes.
- Provides duplication and copying services for all other sections

Skills Required:

- Excellent organizational, filing, copying; and communication skills. Must be detail oriented.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety, IS100 and IS700.

## 1109 Driver

Responsibilities:

- Provides ground transportation services as needed; may transport people using a sedan or van
- May transport wildlife and wildlife food to various facilities or sites by truck

- Loads and unloads coolers used to transport animal food
- Picks up food from suppliers and delivers to facilities
- Keeps vehicle bed clean (if applicable)
- Required to have current driver's license, clean driving record, and proof of insurance

Training Required:

- Site Safety, 4-Hour HAZWOPER Awareness Level

## 1110 Equipment Repair Technician

Responsibilities:

- Maintains and repairs vehicles and response equipment after decontamination

Skills Required:

- A background in mechanics as applicable. Must be able to lift 35 lbs.

Training Required:

- Site Safety, 4-Hour HAZWOPER Awareness Level.

## 1111 File Clerk/Office Assistant

Responsibilities:

- Performs general office tasks
- Files documents in office as appropriate
- Prepares outgoing memos and mail
- Sends and receives faxes
- Makes photocopies

Skills Required:

- Telephone skills, word processing, and development of graphic presentations. Computer spreadsheet/database experience is desirable but not required.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety.

## 1112 First Aid Responder

Responsibilities:

- Provides emergency first aid for volunteers and other responders

Skills Required:

- Current First Aid Certification.

Training Required:

- 2-Hour Workplace Health and Safety (If the Volunteer will be acting as a First Aid Responder in the Warm or Hot Zone shall be trained 24-Hour HAZWOPER) Site Safety.

## 1113 Food Unit Worker

Responsibilities:

- Supplies food and water for responders (outside the hot zone) and volunteers, including those in remote locations
- Sets up and breaks down refreshment stations for responders outside the hot zone

Skills Required:

- Experience in the food industry/catering preferred. Current State Food Handler's Permit required. Must be able to lift 35 lbs. All driving responsibilities require current driver's license, clean driving record, and proof of insurance (if personal vehicle is used).

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety.

## 1114 Housing/Lodging Assistant

Responsibilities:

- Works with the Facilities Unit of the Logistics Section to identify housing for volunteers; receives housing requests
- Procures and distributes housing materials (sleeping bags, blankets, tents), if necessary
- Makes housing assignments and maintains expense records related to housing.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety.

## 1115 Information Management Assistant

Responsibilities:

- Coordinates and insures adequate information technology is provided for volunteer management
- Oversees operation of phone bank
- Matches volunteers to volunteer agencies in conjunction with the interviewer and Scheduler/Time Card Assistant
- Works with the Communications Specialist and File Clerk/ Office Assistant
- Ensures the utilization of data entry procedures to expedite information-sharing

Skills Required:

- Knowledge of information management technologies. Familiarity with computers, job-related applications, and phone skills.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety.

## 1116 Interpreter

Responsibilities:

- Interprets/translates within the Volunteer Unit as needed
- May assist the UC

Skills Required:

- Credentials from an organization such as the American Consortium of Certified Interpreters preferred, but not necessary. Ability to speak, read, and write applicable languages preferred.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety.

## 1117 Interviewer

Responsibilities:

- Works with the Volunteer Unit, processing volunteers who arrive in the area or persons referred to the Volunteer Unit by a local agency
- Establishes rapport with prospective volunteers to appropriate tasks or jobs based on their experience and current volunteer job needs in the response effort

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety.

## 1118 Liaison Chief

Responsibilities:

- Serves as a contact point between the Volunteer Officer, Volunteer Coordinator, or Volunteer Unit Leader and agencies in need of volunteers
- Distributes Volunteer Request Forms to entities that may request volunteers
- Relays requests for volunteers to the Volunteer Officer, Volunteer Coordinator, or Volunteer Unit Leader
- Works with the Interviewer to determine volunteer placement, the Orientation and Training Coordinator to ensure applicable training, and the Scheduler/Time Card Assistant to determine volunteer availability
- Provides copies of Volunteer Request Forms to the Documentation Unit Worker

Skills Required:

- Must be detail-oriented with good communication skills and possess a strong command of the English language.

Training Requirements:

- 2-Hour Workplace Health and Safety, Site Safety, IS100 and IS 700.

## 1119 Medical Unit Worker

Responsibilities:

- Works with the Safety Officer Assistant and the Medical Unit Leader in the Logistic Section
- Responsible for developing the Volunteer Medical Plan, procedures for managing medical emergencies, providing medical aid when necessary, and assisting Finance/Administration with processing injury-related claims

- Work as a First Aid Responder dispatcher
- Transports sick or injured personnel
- Provides copies of all signed volunteer injury-related documentation to the Documentation Unit Worker

Skills Required:

- Current First Aid and CPR Certification. Must be able to lift 35 lbs. Certified Emergency Medical Services Technicians preferred. Automated external defibrillator training preferred. All driving responsibilities require current driver's license, clean driving record, and proof of insurance (if personal vehicle is used). Experience in hospital administration or a related field preferred.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety, IS100 and IS700.

## 1120 Orientation and Training Coordinator

Responsibilities:

- Upon receipt of volunteer placement information from the Interviewer, ensures all training requirements are fulfilled
- Receives signed Volunteer Waiver and Release of Liability Forms
- Coordinated training and orientation sessions with the help of the Training Assistant
- Ensures all Health and Safety requirements are met
- Provides copies of all signed training documentation and Release of Liability Forms to the Documentation Unit Worker.

Skills Required:

- Knowledge of applicable laws, regulations, and training requirements. A working knowledge of the Volunteer Plan (can be trained on-site). Must be detail-oriented with good communication skills and possess a strong command of the English language.

Training Requirements:

- 2-Hour Workplace Health and Safety, Site Safety, IS100 and IS700.

## 1121 Personnel Support

Responsibilities:

- Provides messages and other general coordination support activities for responders and volunteers such as doing laundry

Training Required:

- 2-Hour Workplace Health and Safety Site Safety.

## 1122 Photographer

Responsibilities:

- Provides photographic coverage of the incident for data collection, historic documentation, and future training purposes

Skills Required:

- Experience with still photography and/or handheld video photography is required. Experience with photographing wildlife, preferably in documentary and fast action settings is desirable.

Equipment Required:

- Personal photographic equipment.

Training Required:

- 24-Hour HAZWOPER, Site Safety.

## 1123 Public Information Assistant

Responsibilities:

- Formulates and releases information of volunteer activities to the PIO
- Prepares volunteer press releases as needed
- Ensures all press releases are approved through the UC and the PIO before being released to the public
- Organizes materials for use in media briefings/ press releases
- Provides all press releases to Documentation Unit Worker

Skills Required:

- Experience in communications, journalism, or public relations with project leader responsibility preferred. Strong written and oral presentation skills.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety, IS100 and IS700.

## 1124 Pre-Impact Beach Cleanup/Surveillance

Responsibilities:

- Conducts pre-impact shoreline debris removal (removes non-oiled debris and trash prior to oiling)
- Patrols outside the known hot zone for potential strikes
- Reports stranded or free-floating oil to the Safety Officer Assistant and leave the area immediately. (Volunteers are not allowed in the hot zone)
- Works as a field observer, including beach conditions and weather surveillance
- Relays information concerning oiled wildlife and hazing effectiveness to wildlife services

Skills Required:

- Must be able to lift 35 lbs. Experience in oil and storm-spotting preferred.

Training Required:

- Site Safety, 4-Hour HAZWOPER Awareness Level.

## 1125 Receptionist

Responsibilities:

- Greets personnel arriving at ICP and directs them through the processing stages

Training Required:

- 2-Hour Health and Safety, Site Safety

## 1126 Runner/Courier

Responsibilities:

- Shuttles messages and materials among incident locations, such as between the ICP to other spill response sites

Skills Required:

- Must possess a valid driver's license, clean driving record, and proof of insurance.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety.

## 1127 Safety Officer Assistant

Responsibilities:

- Works with the Medical Unit Worker(s) and Safety Officer
- Assists in developing Site Safety Plans
- Ensures proper PPE distribution through the Supply Assistant
- Ensures volunteer adhesion to both the Medical Plan and the Site Safety Plans
- Ensures Volunteer Emergency Action Plans are completed and readily available
- Ensures volunteers know how to report injuries
- Documents volunteer injuries
- Addresses safety concerns.
- Provides copies of volunteer signed documentation to the Documentation Unit Leader

Skills Required:

- Familiarity with the Medical Plan, Emergency Action Plans, and Site Safety Plans. Excellent writing and organizational skills. Current first aid and CPR certification preferred. Experience in a safety-related field desirable.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety, IS100 and IS700.

## 1128 Scheduler/Time Card Assistant

Responsibilities:

- Assures maintenance of sign-in and sign-out records for volunteers and responders
- Ensures that all volunteers and responders on site are properly cleared and trained (and are not exceeding scheduled hours, in accordance with the UC guidance)
- Develops and monitors scheduling to ensure that sufficient volunteers are on hand at all times, according to the needs of the sites, facilities and staff

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety

## 1129 Supply Assistant

Responsibilities:

- Assists with identification of logistical requirements with issue and control of personal equipment and supplies to volunteers and potentially responders.

Skills Required:

- Experience in ordering, issuing, and stocking, accounting for, maintenance, and recovery of equipment and supplies from user personnel.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety.

## 1130 Technical Support Specialist

This position is opened only upon request from the Scientific Support Coordinator (SSC) or Environmental Unit Leader.

Responsibilities:

- Supports the SSC
- Identifies environmentally sensitive areas, species of concern, and pertinent cultural/historical resources
- Provides GIS/mapping and computer support, weather forecasts, and current and tide data to help determine spill trajectory, fate, and impacts

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety, IS100 and IS700. Additional training is task-specific and to be determined by the SSC

## 1131 Traffic Monitor

Responsibilities:

- Oversees site access points to ensure only authorized persons enter, ensures habitat protection.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety.

## 1132 Training Assistant

Responsibilities:

- Coordinates required trainings, arranges for class presentations by trainers, oversees audiovisual equipment and programming, schedules volunteer training sessions.

Skills Required:

- Excellent organizational and communications skills.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety.

## 1133 Transportation Assistant

Responsibilities:

- Works with the Transportation Unit of the Logistics Section to determine volunteer transportation needs including frequency, routing, and type of transportation (car, van, truck, commercial shuttle, bus)
- Determines volunteer drop-off and pick-up schedules for multiple sites; coordinates and verifies appropriate volunteer driver authorizations
- Monitors vehicle condition and maintenance among vehicles assigned to volunteer use, in accordance with the guidance of the UC and maintains appropriate vehicle use records

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety.

## 1134 Volunteer Supervisor

Responsibilities:

- Monitors volunteers to ensure they are following health and safety practices.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety, additional trainings may apply depending on volunteer supervisory assignment. At a minimum the Volunteer Supervisor must be trained at or above the level of the volunteer workforce being supervised.

## 1135 Wildlife Notification

Responsibilities:

- See Pre-Impact Beach Cleanup/Surveillance
- As part of beach control activity, notify wildlife services, USFWS and LWLF of injured wildlife and hazing effectiveness (Volunteers are not allowed to handle or transport wildlife without proper certification.)
- Urges public to avoid areas and wildlife that are affected as untrained people can cause further damage to the environment and stress on wildlife.

Skills Required:

- Experience with wildlife and background in the natural sciences preferred.

Training Requirements:

- Site Safety, 4-Hour HAZWOPER Awareness Level.

## 1136 Wildlife Recovery and Rehabilitation

Wildlife recovery and rehabilitation organizations generally manage their own database of trained volunteers that operate outside the scope of this plan. Therefore, volunteers in this area are only utilized if wildlife services exhaust resources. Approval from the USFWS and LDWF and the lead wildlife response organization is needed before volunteers are assigned any position in wildlife recovery, rehabilitation, or release. Volunteers **are not** allowed to handle or transport wildlife without proper certification.

## 1137 Wildlife Rehabilitation Facility Maintenance Specialist

Responsibilities:

- May include carpentry, air conditioning, plumbing, welding, and electrical support to the wildlife rehabilitation facility as requested
- Involves pool/cage construction and maintenance. Volunteers are not allowed to handle or transport wildlife without proper certification

Skills Required:

- Skills applicable to maintenance task. Must be able to lift 35 lbs.

Training Required:

- 2-Hour Workplace Health and Safety, Site Safety.

## 1138 Wildlife Rehabilitation Facility Support Specialist

Responsibilities:

- Cleans animal pens and holding areas

- Moves and cleans equipment as needed
- Prepares food and feeds wildlife. Volunteers are not allowed to handle or transport wildlife.
- Washes vehicles, washes and folds towels used for drying animals, and cleans and disinfects carrying cages and other animal capture and transport equipment following decontamination.
- Follows established protocols

Skills Required:

- Experience with wildlife and background in the natural sciences preferred. Custodial experience preferred. Must be able to life 35 lbs.

Training Required:

- Site Safety, 4-Hour HAZWOPER Awareness Level

# 2000 Volunteer Management and Coordination Resources

The following tools and contacts are intended to help solicit, recruit, assign and manage a cadre of volunteers during a pollution response incident. Additional resources, tools and job aids can be found in the National Response Team (NRT) Use of Volunteers Guidelines for Oil Spills.

## 2100 Volunteer Memorandum of Understanding (MOU)

This MOU between the USCG, EPA and the Corporation for National and Community Service (CNCS) outlining the responsibilities of each agency in developing and supporting a volunteer management program following an oil or hazardous substance pollution incident. For further details, please refer to the USCG-EPA-CNCS MOU.

## 2200 State of Florida Volunteer Coordinators

To assist with the handling of affiliated volunteers the Florida volunteer coordinator can be found at:

http://www.nationalservice.org/about/contact/statecommission.asp.

http://readysouthflorida.org/monroe-county-volunteer-programs/

**Volunteer Florida**
3800 Esplanade Way
Suite 180
Tallahassee, FL 32311

## 2300 Volunteer Solicitation Press Release

This sample press release should be revised to accommodate the specific details of an incident and should specifically outline the skill sets needed from a volunteer workforce. As an incident and the status of volunteer utilization changes, the Volunteer Officer, Volunteer Coordinator, or the Volunteer Unit Leader should prepare additional press releases and present them to the UC and the PIO or JIC Manager for approval for editing and distribution to the media.

(City Name) –In response to the approximate _____ -gallon oil spill in/at _____, the Unified Command has activated the Volunteer Hotline #: 800-XXX-XXXX. Hotline staff will record the caller's name, telephone number, availability, and applicable skills or training. The caller will be informed if or when volunteers will be utilized for spill response and briefed on other event-specific information as needed.

Federal, State, and local governments have determined what tasks are appropriate for volunteer effort, have identified and pre-trained an existing group of volunteers statewide, and have developed a system to activate those volunteers. The system will be activated if the Unified Command at the spill decides that volunteers are needed for the response effort. At that time a volunteer operations center will be established. If additional volunteers are needed, the hotline listing will be publicized through the news media.

The public is advised to stay away from the spill site, as their presence can hamper clean-up efforts and increase danger factors. Oil is a hazardous material, and to work in or near the oil, one is required to complete 8 to 40 hours of training in Hazardous Waste Operations and Emergency Response (HAZWOPER). Additionally, for the safety of both the public and animals, only trained wildlife specialists should attempt to handle oiled wildlife.

The public can help at this by reporting any oiled animals to the Oiled Wildlife Hotline #: 800-XXX-XXXX (not the volunteer hotline #). Trained professional entities that focus on individual oiled animals and their survival after an oil spill will be notified. Modern technology, properly equipped facilities, and new rehabilitation protocols standardize care throughout the State, increasing wildlife survival rates. Wild animals' survival rates increase with a decrease of human contact.

Please call the Volunteer Hotline number for frequent updates.

Note: All press releases must be approved by the Unified Command/PIO before statements are released to the media/public.

# 2400 Volunteer Request Form

Date/Time: _____
Requesting Organization/ Agency/Unit: _____
Name of Contact: _____ Phone: _____ Fax: _____

VOLUNTEER NEEDS
Total Number of Volunteers Needed: _____
Job Title/Description: _____

| Duties | Experience/ Skills | Training Provided? |
|---|---|---|
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Equipment/Special Clothing Needs: _____
_____
Description of Training to be Provided: _____
_____
Job Location: _____
_____
Date/ Time Volunteers Needed: _____
Please Check if Available: Restrooms_____ Parking_____
Safety Equipment _____ Telephone
Transportation to Work Site _____
Volunteer(s) should report to the following person for additional training/instruction:
Name: _____ Phone: _____ Fax: _____
Location: _____
_____
For Office Use Only
Follow up date & time: _____
_____
Follow up action: _____
_____
Position(s) filled? _____
_____
_____
Volunteer Name(s): _____

## 2500 Volunteer Registration Form

If this document is retained and filed by a federal agency, do NOT file by name or other personally identifiable information of the volunteer. Doing so may be a violation of the Privacy Act, 5 U.S.C. 552a.

Name: _____ Date: _____
Phone (day): _____ (eve.) _____ (fax):_____
E-mail: _____
Address: _____
Age (must be over 18): _____
Present employer: _____ Occupation: _____
Availability: _____
Do you have a current Driver's License? _____
Are you affiliated with any response organization/volunteer group? If so, which?
_____
Are you in good health and not pregnant? _____
Do you suffer from any heart or respiratory condition? _____
Are you able to lift 35 lbs? _____
Health Insurance Provider/Contact information: _____
Do you speak any language other than English? _____
Are you certified in any of the following? Certification Type/Agency* Exp. Date
Bird Rescue/Rehab.: _____
Hazmat/HAZWOPER: _____
First Aid/CPR: _____
Coast Guard licenses: _____
ICS Training: _____
Other training/experience: _____
Oil spill experience: _____
Placement Preference
Wildlife Rehabilitation Center: _____
Pre-impact Beach Cleanup/Surveillance: _____
Administrative/Clerical _____ Basic Needs/Logistics _____
Technical _____ Mechanical _____ Public Relations _____
Other: _____
_____
Geographic area preference: _____
Emergency Contact Name:_____
Phone (day and eve.) _____
Address: _____
Signature: _____ Date: _____
Printed Name: _____

# 2600 Volunteer Timesheet

Volunteer Name: _____
Telephone Number: _____

| Date | Start Time | Stop Time | Total Hours | Functions Performed/ Daily Supervisor |
|---|---|---|---|---|
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Supervisor Signature: _____

# STANDARD OPERATING PROCEDURES

SHORT-RANGE UNMANNED AIRCRAFT SYSTEMS
FLIGHT OPERATIONS


Version 4.0
20 Aug 2024

**PREPARED BY:**

S.A. Hill LCDR
United States Coast Guard
SR-UAS Platform Manager (CG-711)

SIGNATURE DATE 19 Aug 2024

**CONCURRENCE BY:**

J. H. Walters CDR
United States Coast Guard
Division Chief, Unmanned Aircraft Systems (CG-711)
U.S. Coast Guard Headquarters

SIGNATURE DATE

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United States Coast Guard
Chief, Office of Aviation Forces (CG-711)
U.S. Coast Guard Headquarters

SIGNATURE DATE

# Table of Contents

## PURPOSE

1. This document is the Short-Range Unmanned Aircraft Systems (SR-UAS) Standard Operating Procedures (SOP) and serves as an extension of COMDTINST M3710 (series). The SOP prescribes policy, standards, instructions, and capabilities pertinent to all phases of Coast Guard (CG) operations of SR-UAS.
2. The Coast Guard Office of Aviation Forces, COMDT (CG-711), has developed this SOP to guide the safe use of all SR-UAS platforms in the CG inventory. Safety, above all else, is the primary concern in every operation, regardless of the nature of the mission.

3. CG SR-UAS operations are conducted IAW this SOP, applicable Coast Guard policy, and 14 CFR Part 107. Deviations from Part 107 are PROHIBITED except in the event where such deviation is required for an emergency or for the saving of a human life is dependent upon such deviation.

4. Forms and Reports. All amplifying information about the SR-UAS program to include amplifying documentation can be located on the Program's SharePoint page: Short Range UAS (SR-UAS) - Home (sharepoint-mil.us).

5. Digital Pilot Logbook. Use of the Digital flight logbook is **MANDATORY**. All SR-UAS Remote Pilots **SHALL** log all CG SR-UAS flights via the Sextant Group application: Coast Guard Short Range Unmanned Aerial Systems (uscg.mil). A guide on how to register for Sextant and use the application is located on the Program's SharePoint listed above.

6. REQUESTS FOR CHANGES. Proposed changes to this Manual shall be submitted to COMDT (CG-711).

## THE MISSION AND PHILOSOPHY OF THE SR-UAS PROGRAM

1. MISSION STATEMENT. The mission of the Coast Guard's SR-UAS Program is to safely innovate operational capabilities for the use of SR-UAS for all 11-statutory missions of the Coast Guard.

2. PHILOSOPHY. Safely challenge the status quo and look for opportunities to change how the Coast Guard conducts its missions for the better.

# SR-UAS ORGANIZATION AND ADMINISTRATION

1. APPLICABILITY. This SOP is applicable to all military, civilian employees and CG Auxiliary who are actively involved and designated as SR-UAS Remote Pilots and operating a CG SR-UAS or mission. Operational procedures described in this SOP will be used to maintain prudent, safe operating practices and to ensure appropriate response actions are taken in the event of an emergency.

2. ROLES AND RESPONSIBILITIES.

2.1 General.

The roles and responsibilities of personnel involved in both the operation and management of SR- UAS flight operations are defined below. Roles and responsibilities are specific to the operation of CG SR-UAS platforms. Safe operations are the primary concern for each mission.

2.2 Program Administration.

(1) Chief of Aviation Forces (CG-711). Authority for all Coast Guard Aviation policy.

(2) Unmanned Aircraft Systems Division Chief (CG-7114). Supervises the implementation and management of Long-Range, Medium-Range, and Short-Range UAS.

(3) Short-Range Unmanned Aircraft Systems Platform Manager. Manages the program from CGHQ and is responsible for:

(a) The general configuration management of the CG SR-UAS fleet.

(b) Acting as the Chief SR-UAS Innovation Officer

(c) Generating Requirements

(d) Maintaining all documentation in accordance with Department of Homeland Security (DHS) requirements

(e) Generating and maintaining Coast Guard Policy for training, standardization, and operations.

(f) Maintaining adherence to FAA regulations.

(g) Ensuring adherence to applicable cyber security requirements.

(4) Unmanned Aircraft System Atlantic and Pacific Area Managers. Responsible for the following:

(a) Assisting the SR-UAS Platform manager with their responsibilities.

(b) Managing mishaps and reporting mishaps into e-aviators database.

(c) Providing oversight and coordination between AREA units, HQ, and ATC.

(5) District UAS Coordinator. The District UAS Coordinator is assigned by the District Commander and is responsible for the management of the District UAS program to include the training, procurement, maintenance, and instruction requirements in compliance with applicable U.S. Coast Guard and FAA policies.

(6) Sector UAS Coordinator. The Sector UAS Coordinator is assigned by the Sector Commander and is responsible for the management of the Sector UAS program to include the training, procurement, maintenance, and instruction requirements in compliance with applicable U.S. Coast Guard and FAA policies.

(7) Short-Range Unmanned Aircraft System ATC Training Division:

(a) SR-UAS Training & Standardization Division Chief. Responsible for:

1) Designing, developing, and maintaining a standardized training curriculum and syllabi for SR-UAS Remote Flight Examiners, Remote Instructors and Remote Pilots.

2) Designing and developing post photogrammetry methods for implementation of image management software.

3) Coordinating and administering training and recurrent training for all SR-UAS designated units.

4) Partnering with CG-711 in development of internal CG policy.

5) Partnering with CG-711 in development of external Memorandums of Agreement with FAA.

(b) SR-UAS Chief Pilot and Configuration Manager. Responsible for:

1) Establishing best practices and techniques for flight operations of SR-UAS for general and mission specific CG operations.

2) Fielding technical, maintenance, and operational questions from the fleet; Liaison to all vendors of CG approved SR-UAS systems for technical, maintenance, acquisition support, and warranty claims.

3) Evaluating new SR-UAS technologies.

(c) ATC SR-UAS Flight Examiner and Assistant Content Developer. Responsible for:

1) Assisting the Division Chief in all administrative functions.

2) Providing digital, classroom, and flight training to CG Members.

(8) SR-UAS Remote Pilot Flight Examiner. Responsible for:

(a) Training and designating Remote Pilot Instructor Pilots.

(b) Delivering the approved and standardized Coast Guard SR-UAS curriculum to students.

(c) Ensuring syllabi, unit approvals, and designation letters are routed to program.

(d) Performing the duties of a SR-UAS Remote Pilot.

(9) SR-UAS Remote Instructor Pilot. Responsible for:

(a) Delivering the approved and standardized Coast Guard SR-UAS curriculum to students.

(b) Ensuring syllabi, unit approvals, and designation letters are routed to program.

(c) Performing the duties of a SR-UAS Remote Pilot.

(10) SR-UAS Remote Pilot. Responsible for:

(a) Conducting SR-UAS flight operations in accordance with CG Policy.

(b) Logging all Coast Guard SR-UAS flights in the digital logbook via Sextant Group application.

(c) Completing required semi-annual recurrent training.

3. SR-UAS QUALIFICATIONS AND DESIGNATIONS.

(a) Short-Range Unmanned Aircraft Systems Remote Pilot Flight Examiner (UAS-SRFE). The UAS-SRFE qualification will primarily be retained in the ATC Training Division with exceptions granted to personnel strategically located in the fleet. This qualification will require personnel to have **at least one year** of operational experience as a designated Remote Pilot **and minimum of six months** as a qualified Remote Instructor Pilot. UAS-SRFEs will be approved **at the discretion of the ATC SR-UAS Division** and approved via memorandum by the Aviation Training Center. A copy of this qualification letter will be kept on file by both ATC Mobile and the UAS-SRFE's unit.

This qualification will remain active providing the member maintains Federal Aviation Administration (FAA) Part 107 license currency requirements and all CG SR-UAS Remote Pilot proficiency requirements.

The SR-UAS Platform Manager, CG-711, or Unit Commanding Officer can revoke a UAS-SRFE qualification at any time. Reinstatement of a UAS-SRFE's qualification must be signed by CG-711 and routed through the parent command.

UAS-SRFE qualification will lapse upon PCS from current unit, failure to maintain FAA part

107 currency requirements, or failure to maintain USCG Remote Pilot proficiency requirements.

**UAS-SRFEs** are responsible for:

(1) Providing standardized training for the SR-UAS Remote Pilot and Remote Instructor Pilot qualifications.

(2) Training to fleet instructors on new technologies and procedures.

(b) Short-Range Unmanned Aircraft Systems Remote Instructor Pilot (UAS-SRIP). The UAS-RIP qualification will be approved based on program needs. This qualification **will require six months of operational experience** as a designated SR-UAS Remote Pilot, successful completion of the SR-UAS Methods of Instruction training, and the completion of the UAS-RIP Syllabus taught by a UAS-SRFE. An RP is considered a qualified UAS-RIP after the successful completion of the requirements listed in para 3(b) and approved by the UAS-RIP's Command Officer via qualification memorandum (reference 11).

This qualification will remain active, provided that the member maintains FAA Part 107 license currency requirements, maintains all CG UAS-RIP proficiency requirements, and remains at the unit in which the qualification was issued.

The SR-UAS Platform Manager, CG-711, or Unit Commanding Officer can revoke a UAS-RIP qualification or RIP authorization at any time. Reinstatement of qualification must include coordination between the member's Command and CG-711.

UAS-RIP authorization will lapse upon PCS transfer from that unit. The gaining Command may re-authorize the member at their discretion, based on unit needs and capacity.

**UAS-RIPs** are responsible for:

(1) Providing standardized training for initial SR-UAS Remote Pilot designations to maintain a healthy program at their assigned unit.

(2) Providing recurrent training to members whose qualifications have lapsed.

(3) Providing initial and recurrent training to additional units in their AOR as available.

(c) Short-Range Unmanned Aircraft Systems Remote Pilot Designation (UAS-SRRP). A remote pilot is considered designated after the successful completion of the requirements outlined in section 5.3 of this SOP and is approved by the UAS-SRRP's Commanding Officer via designation memorandum (reference 11). Gaining units may authorize newly arriving RPs for SR-UAS operations provided that the unit is approved for flight operations by CG-711 and the UAS-SRRP's designation has not lapsed or been revoked. RPs must retain their completed syllabi and initial designation memorandum to provide proof of training as part of their permanent record. A copy of the completed syllabi shall be provided to applicable unit

coordinators.

The SR-UAS Platform Manager, unit Commanding Officer, or Officer in Charge can revoke a UAS-RP's designation at any time. Reinstatement of a UAS-RP's designation must include coordination between the member's Command and CG-711.

4. MISSION ROLES:

(a) Short-Range Unmanned Aircraft Systems Mission Commander (MC). A Mission Commander SHALL be identified for every Coast Guard SR-UAS mission from one of the following qualified SR-UAS Remote Pilots:

(1) Coast Guard Service Member

(2) Auxiliarist, or

(3) Civilian employee.

The MC is responsible for the planning, briefing, execution, and safety during all SR-UAS flight operations associated with their assigned mission. The MC is empowered to make decisions and to take any immediate corrective action necessary to prevent an accident or injury to flight crew or third parties and/or damage to government or non-government property or equipment.

While the MC typically serves as the UAS-RP during the mission, another certified UAS-RP is authorized to fly the SR-UAS; however, the MC must remain at the controlling site.

The **MC's duties** include the following:

(1) Completing the Flight Risk Assessment Tool (Reference 1). The Coast Guard's Safety Program Management Division (CG-1K31) has approved this tool for use in the General Assessment of Risk **(GAR 2.0)** program, which assists in identifying known risks prior to executing any SR-UAS mission or training event.

(2) Completing the SR-UAS **Pre-Flight Checklist** (Reference 2). Required before any SR-UAS mission or training event.

(3) Ensuring the operational area meets any requirements prescribed for the mission location in accordance with CG and FAA guidance and policy.

(4) Identifying and mitigating risk via the utilization of the risk assessment tool.

(5) Ensuring appropriate airspace de-confliction measures have been implemented.

(6) Supervising all personnel involved in the SR-UAS mission.

(7) Ensuring all personnel supporting the SR-UAS mission are qualified and/or designated for the role they are assigned.

(8) Ensuring Low Altitude Authorization and Notification Capability **(LAANC)** or Special Government Interest **(SGI)** clearance is obtained (as required) utilizing an approved application.

(9) Conducting a thorough preflight brief with all SR-UAS personnel involved in the mission.

(10) Ensuring SR-UAS personnel involved in the mission are aware of emergency procedures.

(11) Ensuring all flight operations are logged in the SR-UAS Digital logbook: **Coast Guard Short Range Unmanned Aerial Systems (uscg.mil).**

(12) Conducting a preflight inspection of the SR-UAS to ensure all equipment is verified in proper working order and properly setup prior to flight operations.

(13) Establishing communication with the airspace owner/controlling agency (as required) and maintain a two-way line of communication throughout the duration of the SR-UAS mission, e.g. handheld radio, phone, etc.

(14) Conducting a post-flight brief with SR-UAS personnel following the mission.

(b) Short-Range Unmanned Aircraft Systems Remote Pilot (UAS-SRRP). A remote Pilot shall be identified for every Coast Guard SR-UAS mission from one of the following qualified SR-UAS Remote Pilots:

(1) Coast Guard Service Member,

(2) Auxiliarist, or

(3) Civilian employee.

The Remote Pilot is responsible for the safe flight operations of the SR-UAS in the execution of the assigned mission. The assigned SRRP is responsible for flying the SR-UAS in accordance with Coast Guard and Federal regulations.

**NOTE:**
When flying in autonomous mode, the UAS-SRRP SHALL remain ready and able to resume manual control of the system at all times.

The **UAS-RP's duties** include the following:

(1) Complying with all requirements and procedures in accordance with FAA Part 107, and/or CG outlined policy in this SOP, prescribed for the mission location.

(2) Maintaining control of the SR-UAS at all times, unless properly relieved by the MC or

by another designated CG UAS-RP instructed to take control by the MC.

(3) Ensuring line-of-sight visibility is maintained at all times by either UAS-RP or the SR-UAS Visual Observer.

(4) Maintaining communication with the SR-UAS Visual Observer throughout the duration of the mission and advising the observer of flight maneuvers the UAS-RP is planning to execute.

(5) Knowing the preplanned "ditching zone," which is established and discussed during the preflight brief.

(6) Monitoring system status indicators on the Ground Control System of the SR-UAS platform, ensuring all systems are functioning properly.

(7) Ensuring logbook and database entries are properly and completely filled out following the SR-UAS mission.

**NOTE:**
In the event of an emergency, the UAS-RP has the final decision on when to attempt to land or ditch the SR-UAS; however, the UAS-RP may not violate FAA or Department of Defense (DoD) regulations in an effort to "save" the SR-UAS.

(c) Short-Range Unmanned Aircraft Systems Visual Observer (VO). Prior to the start of all operational SR-UAS missions, the MC shall assign an individual to serve as the SR-UAS VO and brief them of their duties in accordance with Reference 2 of this SOP.

**Any CG service member**, **Auxiliarist, or Civilian employee** can serve as a SR-UAS VO during SR-UAS flight operations.

**NOTE:**
While it is not mandatory for the Visual Observer to be a designated UAS-RP, having one serve as the Visual Observer does mitigate risk, as they will more thoroughly understand SR-UAS flight operations.

Although not required a VO is **highly recommended** for training missions. Once identified, the VO must remain at the controlling site until the mission is complete.
The SR-UAS VO's duties include the following:

(1) Maintaining communication with the airspace owner/controlling agency (as required) and keeping an open line of communication throughout the duration of the SR-UAS mission.

(2) Monitoring airspace and advising the UAS-RP of any errant aircraft or unsafe conditions that arise during flight operations.

(3) Monitoring the surrounding area for personnel, equipment and other hazards (ex. birds, trees, wires, etc.) and identifying the hazards to the UAS-RP, ensuring the pilot avoids the areas.

(4) Ensuring line-of-site visibility with the SR-UAS is always maintained by either the UAS-RP or SR-UAS VO.

(5) Maintaining communication with the UAS-RP throughout the duration of the mission and being aware of flight maneuvers the UAS-RP is planning to execute.

**NOTE:**

The Visual Observer SHALL not be assigned any other duties during the SR-UAS flight operation.

# TRAINING

1. Training Philosophy. The SR-UAS Program is committed to providing training that adheres to internal Coast Guard policy and federal regulations. Remote Pilots will be trained utilizing techniques that meet and exceed developing industry standards to prepare them for varied and evolving mission sets. The goal of the program is to field safe, professional, and competent Remote Pilots.

2. Requests for Training. Aviation Training Center (ATC) Mobile, AL is the central training site for the SR-UAS program. All requests for training shall be submitted to the SR-UAS training team's shared mailbox (SMB-ATCMobile-SRUAS@uscg.mil). Units may request training at an alternate training site for reasons such as logistics or funding; however, the applicable Area UAS manager must validate the training request. Units may also receive initial designation training from fleet instructors; however, the requesting unit must notify the SR-UAS training team via the shared mailbox and receive concurrence from their Area UAS manager.

3. Training Requirements. Coast Guard Short-Range UAS Remote Pilots must complete the following training to earn their UAS-SRRP Qualification:

   (a) Academic Training

      (1) Pass the FAA Part 107 knowledge test and obtain a Remote Pilot Certificate.

      (2) Review and understand CG SR-UAS emergency procedures listed in Reference 3.

      (3) Attend ground school administered by a designated Short-Range UAS Instructor Pilot (UAS-SRIP).

      (4) Prior to operating a new system, UAS-SRRPs shall complete a CG-711 approved Personal Qualification Standard (PQS) for that system. This PQS shall be completed with a Remote Instructor/Examiner Pilot.

   (b) Flight Operations Training

      (1) Complete a training syllabus approved by COMDT (CG-711) for authorized SR-UAS platforms to include:

         1. Flight/hover maneuvers.

         2. Maintaining ground track during takeoff and landing.

         3. Obstacle Avoidance.

         4. Successfully complete no less than five (5) flights per system, which must be supervised by a qualified SR-UAS Instructor/Examiner Pilot.

   (c) Recurrent Training. Upon successful completion of initial designation training, UAS-SRRPs will conduct recurrent proficiency training to maintain their designation (Reference 4). The following shall be completed each semi-annual period:

(1) Review this SOP.

(2) Review SR-UAS emergency procedures.

(3) Maintain the certification requirements of FAA Part 107.

(4) Fly two of each of the following flight events for each SR-UAS on which you are qualified: RT-1, RT-2, RT-3 and an RT-4.

(5) Units operating underway shall complete an RT-5 in addition to RT-1 thru RT-4

**NOTE:**

**After 60 days a warm-up sortie SHALL be conducted with a currently qualified UAS-RP, RIP or RPE. After six months Re-designation training is required.**

(d) UAS-SRIP and UAS-SRFE. Short-Range UAS Instructor Pilots and Flight Examiners shall additionally conduct the following each semi-annual period:

(1) Complete Recurrent Training for UAS-SRRPs

(2) Complete a minimum of 3 Instructor Flights (PIF) Semi-annually.

(e) Re-designation Training. If a Remote Pilot's designation is revoked for any reason, the unit Commanding Officer or Officer in Charge will discuss and coordinate potential actions with COMDT (CG-711) prior to re-designation, including a remedial training plan.

## GENERAL OPERATING PROCEDURES

1. Authority for SR-UAS Operations. Use of CG SR-UAS capabilities in support of authorized missions will be approved by the unit Commanding Officer or Officer in Charge, who has the final authority to approve or deny SR-UAS support for a mission.

**NOTE:**

Intelligence personnel using SR-UAS in support of intelligence collection must do so IAW CIM 3800.6 (series) and other applicable policies or directives governing intelligence activities. Intelligence personnel are **prohibited** from using SR-UAS in support of Title 50 operations.

2. Airspace De-confliction. Prior to conducting SR-UAS operations, the MC shall notify the nearest CG Sector of the planned location, altitude, and timeframe of the mission. Airspace clearance must be verified, and if necessary, obtained via methods and airspace assessment procedures outlined in Reference 5:

   (a) Certain Areas: Low Altitude Automatic Notification Clearance (LAAN-C)

   (b) Emergency Operations: Special Government Interest (SGI)

   (c) Pre-planned Events: Drone Zone

**NOTE:**

The use of an aviation-band handheld radio is recommended to monitor air traffic and de-conflict airspace in accordance with Reference 6 of this SOP when operating within 5nm of an airport.

3. Operations in Sovereign Airspace. Operations in foreign airspace needs to be coordinated and approved by the host nation and 7114 should be briefed. Refer to the Foreign Clearance Guide (FCG) for appropriate Host Nation Rules and Regulations on Unmanned Aircraft. FCG can be found on Pixel Dashboard links APACS.

4. Operations over the High Seas. As public aircraft, CG SR-UAS are required to operate Due Regard when operating outside the 12 nautical mile boundary of the National Airspace System of the United States as specified in DoD General Planning (GP) Flight Information Publication Chapter 8, or DoDI 4540.01, by ensuring that:

   (a) The SR-UAS shall be operated in Visual Meteorological Conditions.

   (b) The MC or VO shall maintain continuous and direct line-of-sight visual observation of the SR-UAS and surrounding airspace.

5. Ground Operations. Prior to launching any SR-UAS flight, the following procedures must be completed:

   (a) The MC SHALL ensure all personnel comply with CG and FAA requirements when operating within the National Airspace System of the United States.

(b) A single control station will be established and designated by the MC.

(c) The SR-UAS vehicle and flight controller software/firmware will only be updated with approval by COMDT (CG-7114) Program Manager.

6. Risk Management and Briefings. Prior to launching SR-UAS approved platforms, the MC shall conduct a preflight brief with personnel supporting the flight.

(a) A preflight risk assessment shall be completed for every sortie using the GAR 2.0 process in Reference 1 of this SOP.

(b) Risk shall be reevaluated periodically, and the risk assessment amended as required. All SR-UAS flights, to include training flights, will be operated within visual line of sight of either the Remote Pilot and/or the Visual Observer.

7. Weather. SR-UAS shall not be operated in weather conditions that are below the limitations listed in FAA Part 107 including:

(a) Maintaining a clearance of 500 feet below and 2,000 feet horizontally from clouds.

(b) Visibility less than three 3 statute miles.

(c) Wind speeds in excess of those listed in the Operator's Manual for the system in use.

(d) Adverse weather to include, but not limited to heavy rain, heavy snow, and lightning.

**NOTE:**
The assigned Visual Observer is responsible for monitoring weather conditions throughout the duration of flight operations and advising the MC if adverse conditions are approaching.

(e) The MC will ensure that any airspace adjustments due to changes in weather are accounted for throughout the mission period. (i.e., Surface Class E)

8. Pre-flight Checklist. Prior to any flight the MC will conduct a preflight checklist in accordance with Reference 2.

9. Post-flight Checklist. Following any flight the MC will conduct a post-flight checklist in accordance with Reference 2.

10. CG Short Range Unmanned Aerial Systems Database (ArcGIS and Survey123). SR-UAS Operators shall use the Short-Range Unmanned Aerial System Database for every flight conducted with a Coast Guard SR-UAS. CG-711 will track Remote Pilot and mission data using ArcGIS and Survey123. Instructions for use can be found in Reference 7 and on the Short Range UAS (SR-UAS) - Home (sharepoint-mil.us)

UAS-RPs are required to enter the following information when creating their SR-UAS operator

profile:

(a) First and Last Name

(b) Employee or Aux identification number

(c) Area, Distinct, Sector and Unit Type

(d) FAA Part 107 Certificate Number

(e) FAA Part 107 Certificate completion date

(f) FAA Part 107 Recurrent training due date

(g) Qualification(s)

(h) Email address.

**NOTE:**
Auxiliary and Civilian UAS-RP Operators without a Common Access Card (CAC) SHALL coordinate Pilot Profile and SR-UAS Mission database entries IAW Reference 7.

For every flight, the UAS-RP will complete a database entry. At the end of the day or at the pilot's earliest reasonable opportunity, each mission shall be entered into the SR-UAS database. Instructions for database mission entries can be found in Reference 7 and on the Short Range UAS (SR-UAS) - Home (sharepoint-mil.us). The pilot will log the following at a minimum:

(a) SR-UAS Operator Name

(b) Mission Type

(c) Qualification Type

(d) Date and Time of Mission

(e) Location

(f) Hours Flown

(g) Number of Sorties Flown

(h) Tail Number

(i) Results

(j) Comments.

## LOGISTICS

1. INSPECTIONS AND MAINTENANCE. Prior to the execution of any SR-UAS mission and following the conclusion of any SR-UAS mission, the MC and/or UAS-RP will perform an inspection of both the SR-UAS and its batteries in accordance with the SR-UAS Preflight Checklist (See Reference 2), including structural integrity, propeller mounts, and loose components.

**NOTE:**
If the MC and/or UAS-RP deems the platform unsafe to fly, flight operations will immediately be suspended until sufficient maintenance is completed.

2. INVENTORY AND PROPERTY. Per DHS Policy Memorandum 119-08, all UAS shall be considered as official property, independent of system cost. Actions required by all units operating UAS:

   a. Report serial number, make, model, pairing ID, and WiFi key for each system to the UAS Program Manager for inventory tracking and tail number assignment.

   b. Entry of UAS into the Property System of Record (no need to enter in peripherals, i.e. cameras, batteries, or external components).

   c. In the Property System, the following parameters SHALL be set:

      (1) ECC: 3

      (2) Asset Type: Aircraft

      (3) Official Name: Small Unmanned Aircraft System

      (4) FSC: 1550.

3. HAZARDOUS MATERIALS. Except for Lithium-ion Batteries, no hazardous materials will be used as part of SR-UAS flight operations. However, this SOP allows the CG SR-UAS fleet to operate in proximity of hazardous materials such as, but not limited to, ammunition and explosives on active, live-fire ranges, fuel storage facilities, or active spill locations. Safety concerns related to these hazardous material items will be documented and proper safety procedures and mitigations will be implemented prior to receiving flight approval.

4. PERSONAL PROTECTIVE EQUIPMENT (PPE). When operating any CG SR-UAS platforms, whether for an operational mission or training, the UAS-RP and Visual Observer are required to wear the uniform of the day or appropriate organizational clothing. Any member that is launching or recovering the SR-UAS by hand, should consider using the following equipment:

   a. Long sleeves.

   b. Eye protection in dusty environments.

c. Head, eye and hand protection if hand-launching from an unstable platform or moving vessel.

5. MEDICAL REQUIREMENTS. All Flight Personnel must be in a condition fit to perform their duties safely. The following are required to act as MC or RP:

   a. Valid PHA (Active Duty or Reserve members).

   b. Valid state-issued vehicle operator's license (Auxiliarist and CG civilian personnel).

   c. Vision correctable to 20/20 (recommended).

6. ALCOHOL OR DRUGS. No person may act as a member of the SR-UAS operation if they are under the influence of any drug, alcohol, or medication likely to impair their performance of duties per FAA Regulations §107.27 Alcohol or Drugs.

   No person may act or attempt to act as a crewmember of a civil aircraft:

   a. Within 8 hours after the consumption of any alcoholic beverage.

   b. While under the influence of alcohol.

   c. While using any drug that affects the person's faculties in any way contrary to safety.

   d. While having an alcohol concentration of 0.04 or greater in a blood or breath specimen. Alcohol concentration means grams of alcohol per deciliter of blood or grams of alcohol per 210 liters of breath.

7. COLLECTION AND STORAGE OF IMAGERY. Imagery collection and subsequent dissemination by SR-UAS SHALL be conducted in accordance with applicable CG policy and imagery security classification guides. All imagery will be handled in accordance with Reference 8.

8. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS. In accordance with the National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts, COMDTINST M16475.1 (series), a study was conducted to measure SR-UAS impact within CG operating areas. Reference 9 contains the comprehensive report and areas crews SHALL be cognizant of prior to the operation of SR-UAS.

9. PRIVACY. The CG is committed to respecting the privacy rights of third parties impacted by and all SR-UAS flight operations. No flight will be authorized if the operation would be in violation of any local, state, or federal law or regulation regarding privacy. All efforts should be made to prevent the collection of personally identifiable information (PII) during the conduct of any SR-UAS mission. Handling of PII SHALL be in accordance with Reference 8 and COMDTINST 5260.5 (series).

10. LIST OF REFERENCES WITH LINK. All references listed below are located on the Short Range UAS SharePoint site: CG-7114 SOP References

1. FLIGHT RISK ASSESSMENT TOOL
2. SR-UAS PRE-FLIGHT CHECKLIST
3. MISHAP ACTION PLAN
4. RECURRENT TRAINING DESCRIPTION (RT1, RT2, RT3, RT4 and RT5)
5. AIRSPACE CLEARANCE: LAAN-C, SGI, AND COA JOB AIDS
6. TRAFFIC ADVISORY PROCEDURES FOR AIRPORTS WITHOUT OPERATING CONTROL TOWERS
7. SR-UAS DATABASE SEXTANT USER GUIDE
8. DHS IMAGERY SECURITY CLASSIFICATION GUIDE
9. ENVIRONMENTAL ASPECT AND IMPACT ASSESSMENT
10. UAS-SRRP AND UAS-SRIP FLIGHT DESIGNATION AND QUALIFICATION MEMORANDUM TEMPLATES.

# Florida Keys
# Area Contingency Plan
# (FKACP)

## Unconventional Oil Response

# Annex L

May 2022

## Record of Changes

| Change Number | Change Description | Section Number | Change Date | Name |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
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# 1000 Introduction to Unconventional Oil Response Plan

## 1100 Pre-Incident

Recent events have brought this new threat to the attention of only portions of the response community. Many areas still lack the awareness or experience related to responding to incidents involving unconventional oils. Furthermore, responders may be unfamiliar with the parties potentially involved in an incident and their associated responsibilities, capabilities and resources. Therefore, similar to all hazard scenarios, all stakeholders must meet, communicate, plan, train, and practice/exercise accordingly.

## 1200 Training Opportunities

The previously mentioned ambiguities surrounding unconventional oils and the Coast Guard's unfamiliarity with responding to incidents involving rail transportation requires additional training for Coast Guard responders. Suggested training opportunities include:

- Crude by Rail (PER-327) Source: Security & Emergency Response Training Center (FEMA Funded); on-line version available; www.sertc.org
- Tank Car Specialist (PER-290), source: Security & Emergency Response Training Center (FEMA Funded); www.sertc.org
- HAZMAT Incident Response (MS-503), source Environmental Protection Agency (Coast Guard TQC Funded); www.tracenpetaluma.com/tqc/school
- Oil Spill Control (MS-505), source Texas Engineering Extension Service (Coast Guard TQC Funded); www.tracenpetaluma.com/tqc/school

## 1300 Exercises

Until the level of knowledge and proficiency is adequate, multiple exercises involving stakeholders should be conducted. Afterwards, an annual exercise involving key stakeholders will be appropriate. It is very important to include the shippers and carriers (railroads) in these exercises.

# 2000 Initial Phase

Incidents involving more volatile unconventional oils such as Eagle Ford or Bakken crude oils should be approached and managed as hazardous material incidents [2]. For incidents involving unconventional oils, the preliminary assessment is complicated due to a variety of issues.

Oil produced in shale formations can vary greatly from each geographic region and even within the same formation [1]. Therefore, unconventional oil transported on the same unit train may have hazard variations amongst carloads.

Tank cars carrying unconventional crude oil can also be found in manifest trains, which carry multiple commodities [2]. Therefore, responders must consider the potential impact of tank cars containing other hazardous commodities with tank cars carrying unconventional crude oils [2].

Currently, unconventional oils whether a more volatile Eagle Ford or more stable Black Wax oil, are transported under the shipping name "Petroleum Crude Oil" and UN1267. This leaves responders with ambiguities and a false sense of security when assessing the threat. Furthermore, companies associated with the transportation of unconventional oils may use generalized crude oil

safety data sheets (SDS), formerly Material Safety Data Sheets (MSDS), which may not include specific product hazards for the exact oil being transported [1]. Therefore, it is paramount responders carefully consider the incident-specific product(s) and recognize hazard variations may exist [1].

Responders can determine what specific commodities and associated hazards may be involved in an incident by obtaining shipping papers such as the train consist, contacting the shippers or rail carriers' emergency contact number, and obtaining product specific SDSs (i.e. Black Wax, Eagle Ford, or Bakken SDS). The conductor will have the complete train consist immediately available [2]. The origination facility will also have actual lab sampling of the specific product makeup. Additionally, field observations of placards, labels, container shapes, and marking from a safe distance can provide and validate information. Traditional response advisors such as the National Oceanic and Atmospheric Administration's (NOAA) Scientific Support Coordinator (SSC), Coast Guard's National Strike Force, and Environmental Protection Agency's Environmental Response Team should also be consulted for assistance with hazard assessment and risk evaluation.

The risks of personnel intervening directly in the incident should be evaluated. Limitations of people and resources available on site should be considered. The level of risk is influenced by not limited to; the hazardous nature of the material involved including sub-components, quantity of material involved, status of container(s) and breach/release scenarios, proximity of exposure, nature of terrain, and availability of resources such as adequate foam supply [2].

## 2100 Potential Hazards

As note earlier, responders must carefully consider the incident-specific product(s) and situation while also recognizing hazard variations may exist. Below is generalized information provided by the Emergency Response Guide number 128 for UN1267, Petroleum Crude Oil [3]:

- Highly flammable, will be easily ignited by heat, sparks, or flames.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. The vapors will spread along ground and collect in low or confined areas.
- Run-off to sewer may create fire or explosion hazards
- Container may explode when heated
- Many liquids are lighter than water

The following questions from the Region 4 LEPC may aid responder in estimating the potential impact [2]:

- What is the proximity to people, property, and the environment?
- Is the container(s) and or product on fire?
- Are other tank cars at risk?
- Do you have the capability of successfully controlling the fire spread?
- Has the container been breached and is product releasing?
- Where will the container and its contents likely travel?
- How and when will the contents get there?
- What harm will occur when the contents (plume, slick, etc…) get there?
- What is the actual amount spilled and the maximum spill potential?

# 3000 Initiation of Action

Based on the results of the preliminary assessment, if adequate resources are not present, they must be requested/ordered immediately. Air monitoring for the applicable flammable and toxic concentrations should be started as soon as possible. A comprehensive air monitoring plan should be developed to ensure the safety of all personnel involved and help facilitate operations.

Initial site management and control is crucial [2]. The incident area must be isolated and secured, including the evacuation of or sheltering in place of any people at risk. Ignition sources must also be secured or removed. Appropriate secure perimeters and entry control points should be established to prevent unauthorized personnel from entering the site [2]. Tape, barricades, traffic cones, or fire service/law enforcement resources can be used to establish and maintain perimeters [2]. The location of the restricted area should be communicated to all personnel operating on scene and the public through public communication systems, such as safety broadcasts [2]. The Emergency Response Guide can be used to provide initial guidance for the aforementioned actions [2].

## 3100 Evacuation of an Area

As note earlier, responders must carefully consider the incident-specific product(s) and situation while also recognizing hazard variations may exist. In addition, environmental factors such as weather, topography, and surrounding physical structures must be taken into consideration. Consult NOAA SSC for refinements to initial evacuation area and hot zone. Below is generalized information provided by the Emergency Response Guide number 128 for UN1267, Petroleum Crude Oil [3]:

- For a large spill consider initial downwind evacuation for at least 1000', and
- If rail car or tank car is involved in fire, isolate for 1/2 mile in all direction; also consider initial evacuation for 1/2 mile in all directions

The incident site assessment should begin from a safe distance; upwind, uphill, upstream etc… The specifics of each incident must be considered, however as a general rule: the more volatile material in the unconventional crude oil may be present in high concentrations, which creates an inhalation hazard [2]. Furthermore, products of combustion may also include toxic constituents [2]. Therefore, responders should wear self-contained breathing apparatuses (SCBAs) to avoid

potential exposure. Deviations from the aforementioned will be dictated based on the Incident Commander and Safety Officers assessment of air monitoring results and other situational factors.

An Incident Command Post should be established as soon as possible outside of the impacted area [2]. Furthermore, a Unified Command (UC) should be established consisting of those agencies and organizations, which have legal or jurisdictional responsibilities [2]. The Incident Commander should consider additional support and resources from regional, state, or federal partners [2]. In addition, non-emergency local, regional, and municipal entities may play a role and need to be integrated into the command structure (i.e. public works, transportation department) [2].

# 3200 Emergency Response Actions

### 3201 Fire

As note earlier, responders must carefully consider the incident-specific product(s) and situation while also recognizing hazard variations may exist. Below are some generalized, scenario based response actions provided by the Emergency Response Guide number 128 for UN1267, Petroleum Crude Oil [3]. In the event of a:

- **Small Fire:**
  - Use dry chemical, CO2, water spray or regular foam
- **Large Fire:**
  - Provide water spray, fog, or regular foam
  - Do not use straight streams (can create slop-over)
  - Move containers from fire area, if possible without risk
- **Fire involving Tank or Car/Trailer Loads:**
  - Fight fire from maximum distance or use unmanned hose holders or monitor nozzles
  - Cool containers with flooding quantities of water until well after fire is out
  - Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank(s)
  - Always stay away from tanks engulfed in fire
  - For massive fire, use unmanned hose holders or monitor nozzles; if this is NOT possible, withdraw from area and let burn

Remember that all of these products have very low flash points and the use of water spray when fighting fire may be inefficient. For mixtures containing alcohol or polar solvent, alcohol-resistant foam may be more effective.

Runoff from fire-fighting should be prevented from entering storm/sewer systems and sensitive areas [2]. Proper authorities should be notified of potentially contaminated water [2]. Runoff may be flammable and/or toxic and should be contained, treated, and disposed of in accordance with applicable laws and regulations [2].

### 3202 Spill

As note earlier, responders must carefully consider the incident-specific product(s) and situation while also recognizing hazard variations may exist. Below are some generalized, scenario based response actions provided by the Emergency Response Guide number 128 for UN1267, Petroleum Crude Oil [3]. In the event of a spill or a leak:

- Eliminate all ignition sources (no smoking, flares, sparks or flame in immediate area)
- All equipment used when handling the product must be grounded
- Do not touch or walk through spilled material.
- Stop leak if you can do without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb or cover with dry earth, sand, or other non-combustible material and transfer to containers.
- Use clean non-sparking tools to collect absorbed material.
- For large spill, dike far ahead of liquid spill for later disposal

When enacting any strategies such as berms or dikes that will potential collect or concentrate the spilled material; the trade-off between spill mitigation and the associated increased exposure and flammability hazards from the collected concentration of material/vapors must be considered. NOAA SCCs can be contacted to provide guidance.

### 3203 Boom Deployment

Initial booming strategies should include exclusion and diversion, keeping oil from sensitive areas, water intakes, and preventing the material and its associated vapors from collecting in confined areas such as under piers, wharfs, and docks.

## 4000 Containment, Countermeasures, and Cleanup Phase

The timing and status of the overall incident will dictate post-emergent containment, countermeasures, and cleanup strategies and tactics. Pivotal benchmarks may include extinguishment of fire with no re-flash risks and safe air monitoring results/readings.

Post-fire, smaller spills without fire, or after the lighter volatile portions of the unconventional oils have evaporated (dependent on quantity spilled and environmental factors) response methods for conventional crude oil incidents may be similarly (not exactly) utilized. Based on air monitoring results, if the threat of hazardous vapors concentrations (exposure or flammability) through containment and/or collection of material is minimal or not present, then booming strategies such as containment or diversion to collection areas may be deployed.

Additionally, the selection of response equipment both manual and mechanical such as skimmers, vacuum trucks, and absorbent/adsorbents can be utilized similarly to conventional crude oil response guidelines and standards. However, as previously mentioned, the incident specific situation and information should ultimately dictate the response strategies and tactics selection. As such, unconventional oils such as Bakken and Eagle Ford are naturally highly dispersible. These oils will submerge into the water column rendering water booming and skimming operations ineffective. On smaller canals or land-based incidents the use of berms or man-made collection

points/pools may be appropriate. The use of under-flow dam may also be appropriate depending on the type of oil or its fate/reaction.

Alternative response technologies such as dispersant, in-situ burn, surface washing agents, bioremediation, solidifiers, and herding agents may be considered. However, as noted earlier, unconventional oils exhibit properties different than conventional crude oil. Therefore application of the aforementioned alternative response technologies may be ineffective. For example, a very high percentage of unconventional oils such as Bakken and Eagle Ford disperses naturally into the water column. As a result, use of dispersants is typically not beneficial. Additionally, in-situ burning is typically not recommended for the more volatile unconventional oils such as Bakken or Eagle Ford because the fire may become hard to control. On the other hand, burning of oil sands may be an option; however the efficacy is limited if weathered.

# 5000 References

[1] Gulf Strike Team (2014) Bulletin Supplement; Responder Awareness – North American Crude Oil Shipments
[2] Mason, S. & Gafford, H. (2015) Region 6 LEPC Update Volume 28, No.2 February 2015
[3] Transport Canada, U.S. DOT, Secretariat for Communications and Transport & Chemistry Information Center for Emergencies (2012). Emergency Response Guide

# Florida Keys
# Area Contingency Plan
# (FKACP)

# State Historic Preservation Office (SHPO) Notification, Coordination and Consultation
# (Federal/State of Florida Guidance)

# Annex M

May 2022

## Record of Changes

| Change Number | Change Description | Section Number | Change Date | Name |
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## List of Tables

# 1000 Introduction

## 1100 Purpose

This Annex outlines the relationship between the Florida State Historical Preservation Office (SHPO) and the U.S. Coast Guard (USCG) as it relates to notification, coordination and consultation under the National Historic Preservation Act, Section 106.

## 1200 Background

The National Historic Preservation Act, Section 106, among other requirements, requires that "Federal agencies take into account the effects of their undertakings on historic properties and to provide the Advisory Council on Historic Preservation (ACHP) with a reasonable opportunity to comment." Additionally, it requires that the Federal agency involved "consult on the Section 106 process with State Historic Preservation Offices (SHPO)" (36 CFR 800).

Within Florida, each of the four USCG Federal On-Scene Coordinators (FOSC) within the coastal zone, are required to ensure timely notification to the SHPO. The required notification, and follow-on coordination and/or consultation, applies to any USCG approved ***response actions*** involving oil discharge or hazardous substance mitigation activities within the coastal zone. The four USCG FOSCs are:

- Sector Key West
- Sector St. Petersburg
- Sector Miami
- Sector Jacksonville

# 2000 Action

In the event of an oil spill that itself, or its associated response actions, may reasonably impact cultural resources within the State of Florida, and which involve response actions being overseen by the USCG, the appropriate USCG FOSC, or their representative, will be responsible for ***initiating contact*** with the FL SHPO, conveying to the SHPO the location of the impacted/potential impacted area, and the types and locations of associated response actions. The Divisions of Archaeology and Historic Preservation together serve as the SHPO staff for the State of Florida and are responsible for the protection of cultural resources (such as historic structures, cemeteries, and archeological sites) across Florida. In this initial contact, the USCG FOSC, or their representative, will inform the SHPO of the location of the actual spill and/or potential actions associated with the response. The SHPO will make the determination whether these actions threaten any known cultural resource or if there is a reasonable likelihood unknown cultural resources could be threatened, and whether there is a necessity for formal consultation.

If the SHPO determines that no known cultural resources exist, or there is minimal risk, the SHPO will provide their determination in the form of an email back to the FOSC, or their representative. This documentation will be provided to the Environmental Unit, if established, and filed within the incident-specific documentation. Additionally, as the federal action agency within the coastal zone, the USCG FOSC, or designated representative, must ensure that all SHPO determinations are filed within the unit-specific administrative record. This SHPO determination may describe

conditions, locations, or actions, which if realized, may result in the necessity for formal consultation with the SHPO along with any guidance regarding unknown resources.

If the SHPO determines that the described activities may potentially, or in fact will impact any cultural resources, the SHPO will immediately notify the Federal On-Scene Coordinator (FOSC) or designated representative so the USCG can initiate formal consultation per (36 CFR 800). Other State agencies such as the Florida Department of Environmental Protection (FDEP) may be included/updated on **the consultation process but the consultation MUST be federally undertaken between the FOSC and the SHPO**. As mentioned earlier, the USCG FOSC, or designated representative, must ensure that all relevant consultation documents are filed within the unit-specific administrative record.

# 3000 SHPO Interactions

## 3100 Example 1

A designated USCG FOSC representative contacted the FL SHPO representative to inform of a spill and potential response actions, which involved booming activities in Similar Sound near Saddlehill Key. Due to the possibility of response actions affecting unknown historic properties, the FOSC representative initiated contact with the SHPO, as is standard practice.

The SHPO responded to the FOSC representative via email after reviewing all documentation with a simple email stating that "This area does not have any recorded archeological sites so there is no concern for booming." The USCG FOSC representative filed this information within the unit-specific administrative record. No further coordination was necessary with the SHPO.

## 3200 Example 2

A designated USCG FOSC representative contacted the FL SHPO representative to inform of an oil spill associated **mitigation operations related to a sunken vessel removal near Dry Tortugas National Park**. Upon review of information and materials conveyed by the USCG FOSC, the SHPO determined that an archaeological site was known to be in the area and might be impacted by the response actions.

The USCG, as the lead federal agency, continued to work with the FL SHPO on implementing appropriate best management practices to minimize effects. Upon completion, the USCG FOSC, or designated representative, ensured that all Section 106 consultation documents are filed within the unit-specific administrative record.

| **Table 1 Contact Info** | | | | |
|---|---|---|---|---|
| Agency | Name | Title | Email | 24-hr |
| FL Division of Historical Resources | Timothy Parsons, Ph.D. | Director, Division of Historical Resources , SHPO (lead contact) | timothy.parsons@dos.myflorida.com | 850-245-6300 |
| FL Bureau of Historic Preservation | Kelly Chase | Deputy, Supervisor of Federal and State Compliance Review | Kelly.Chase@dos.myflorida.com | 850-245-6333 |
| USCG Seventh District | Richard Lavigne | Incident Management and Preparedness Advisor | Richard.J.Lavigne@uscg.mil | 305-415-7138 |

# CUBUS PLAN

**Bilateral Coordination Plan between the United States of America and the Republic of Cuba Regarding Marine or Coastal Environmental Pollution Events caused by Spills of Hydrocarbons and other Noxious and Potentially Hazardous Substances**

*(Inside front cover)*

## Letter of Promulgation

1. The *Bilateral Coordination Plan between the United States of America and the Republic of Cuba Regarding Marine or Coastal Environmental Pollution Events caused by Spills of Hydrocarbons and other Noxious and Potentially Hazardous Substances* ("CUBUS Plan" or "Plan") provides standard operational procedures in cases of pollution events or threats of pollution events that may impact the marine area of each country.

2. The CUBUS Plan derives from the obligation set forth in Article I of the *Cooperation Agreement Between the United States of America and the Republic of Cuba on Preparedness for and Response to Pollution Caused by Spills of Hydrocarbons and Other Noxious and Potentially Hazardous Substances in the Gulf of Mexico and Straits of Florida* ("the Agreement"), done at Havana, on January 9, 2017.

3. According to Article IV of the Agreement, the United States of America designates the United States Coast Guard and the Republic of Cuba designates the National Staff of the Civil Defense Headquarters and the Ministry of Transportation as the Coordinating Authorities for the CUBUS Plan.

4. The procedures for coordinated efforts described in this Plan do not affect the rights and obligations of the Coordinating Authorities resulting from bilateral or multilateral international agreements.

5. This Plan may be modified by mutual consent of the Coordinating Authorities as outlined in Section 802.

*The CUBUS Plan is signed in duplicate in the English and Spanish languages.*

FOR THE UNITED STATES COAST GUARD:

VADM, DCO

**Daniel B. Abel**
**Vice Admiral, U.S. Coast Guard**
**Deputy Commandant for Operations**
at Washington on 16 DEC 19

FOR THE REPUBLIC OF CUBA
NATIONAL STAFF OF THE CIVIL DEFENSE HEADQUARTERS:

**GD (R) Ramón Pardo Guerra**
**Chief, National Staff of the Civil Defense of Cuba**
at Havana on _____

FOR THE REPUBLIC OF CUBA
MINISTRY OF TRANSPORTATION:

**Jose Joaquin Prado Falero**
**Director General of the Maritime Administration of Cuba**
at Havana on _____

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## Record of Revisions

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# 100 Introduction

## *101 Legal Framework*

101.1 The *Cooperation Agreement Between the United States of America and the Republic of Cuba on Preparedness for and Response to Pollution Caused by Spills of Hydrocarbons and Other Noxious and Potentially Hazardous Substances in the Gulf of Mexico and Straits of Florida* ("the Agreement"), directs the creation of this Bilateral Coordination Plan between the United States of America and the Republic of Cuba Regarding Marine or Coastal Environmental Pollution Events Caused by Spills of Hydrocarbons and other Noxious and Potentially Hazardous Substances ("CUBUS Plan" or "Plan").

101.2 This Plan is not legally binding, and is intended to be applied in accordance with the national laws of the United States of America and Republic of Cuba. It is intended to be interpreted in such a way that it does not affect the rights and obligations of the Parties to the Agreement under international law, including the treaties to which the countries are party and their respective positions with respect to the law of the sea. The Coordinating Authorities recognize that nothing in this Plan waives sovereign immunity or gives rise to any rights or obligations.

## *102 Purposes*

102.1 The purposes of the CUBUS Plan are as follows:

a. To establish a coordinated system and operational guidelines for national preparedness, planning, mitigation, and response to pollution events that may affect the coastal waters or marine environment of the United States and/or Cuba.

b. To provide the suitable means to institute prompt measures to restrict the further spread of oil and other hazardous substances.

c. To provide the mechanism by which adequate resources may be employed to respond to a pollution event.

## *103 Geographic Limits*

103.1 The geographic limits of this Plan encompass the entirety of the areas within the Gulf of Mexico and Florida Straits under the sovereignty, sovereign rights and jurisdiction of the United States or Cuba, including the territorial sea, exclusive economic zone, and continental shelf of each country according to international law. These geographical areas correspond to the delimitations previously established by the Parties in the Agreement and in accordance with international law.

## *104 Designation of National Authorities*

104.1 The Director, Emergency Management (CG-5RI), for the U.S. Coast Guard and the Chief of the National Staff of the Civil Defense of the Republic of Cuba and the Director General of the Cuban Maritime Administration of the Ministry of

Transport, are intended to have the responsibility for the executive oversight and approval authority of the CUBUS Plan.

104.2 The Chief, U.S. Coast Guard Office of Marine Environmental Response Policy (CG-MER), and the General Director of the Maritime Administration of Cuba, are responsible for providing oversight and support to the Joint Planning Team; updating this Plan (as required); supporting the preparedness and joint coordination activities of the CUBUS Plan; and providing support to any national-level response to pollution events which exceed the capabilities of the Joint Planning Team.

104.3 A Joint Planning Team is expected to be formed and consist of representatives from specified agencies in the United States and Cuba that have oil spill planning and preparedness responsibilities in the Area of each Party. Appendix A lists appropriate team members for each country.

a. The intended general functions of the Joint Planning Team are to:

1) Provide advice and counsel to facilitate coordinated planning and preparedness for a pollution event;

2) Provide advisory support to their respective On-Scene Coordinator on pollution response tactics, operations, and available resources;

3) Organize the exchange of information between the two countries regarding general oil and hazardous substance response and this Plan through information exchanges and exercises;

4) Facilitate the exchange of information between On-Scene Coordinators in each country during a coordinated response by phone, email, a shared website, or in-person meetings;

5) Facilitate the exchange of Advisory and Liaison Coordinators when needed; and

6) Inform the Joint Planning Team Chairs of planning, preparedness, prevention, and response activities, to include After Action Reports and recommendations for modifications to this Plan.

b. During a pollution event, the Joint Planning Team is expected to convene at the request of an On-Scene Coordinator, or at the request of a higher authority. The Joint Planning Team is expected to consult and may decide to initiate a coordinated response.

c. When the Joint Planning Team meets in the United States, the United States Coordinating Authority should preside. When the Joint Planning Team meets in Cuba, one of the Cuban Coordinating Authorities should preside.

104.4 The U.S. Coast Guard Seventh District Commander, and the Chief of the National Staff of the Civil Defense of Cuba are responsible for the execution of the Plan. The U.S.

Coast Guard Seventh District Commander and the National Civil Defense Staff of Cuba are intended to be designated as the Joint Planning Team Chairs. The functions of the Joint Planning Team Chairs may be delegated as necessary to competent personnel.

For the United States, these functions may be delegated to the U.S. Coast Guard Seventh District Incident Management and Preparedness Advisor. In the case of Cuba, the functions may be delegated to the Second Chief of the National Staff of the Civil Defense.

a. The intended functions of the Joint Planning Team Chairs are to:

1) Approve requests for a coordinated response;

2) Share relevant technical and operational information with the other Coordinating Authorities to promote efficient and effective responses;

3) Consult with the other country's Joint Planning Team Chair to engage in a coordinated response, as necessary;

4) Advise and provide support to the On-Scene Coordinator;

5) Meet at least annually to address issues pertaining to the Plan; and

6) Plan and carry out training and exercises, subject to domestic legal requirements.

## *105 Definitions*

The definitions in Article II of the Agreement apply to the Plan. The definitions and acronyms that appear in this section are intended to apply wherever they appear in the Plan. These definitions apply for the purpose of this Plan and not necessarily for any other purposes or instrument.

105.1 Activation: Initiation of a coordinated response in accordance with this Plan during a pollution event.

105.2 Advisory and Liaison Coordinator: A position activated when necessary to facilitate operational and technical information sharing between United States and Cuba. The specific functions of an Advisory and Liaison Coordinator are listed in 502.

105.3 Agreement: Cooperation Agreement Between the United States of America and the Republic of Cuba on Preparedness for and Response to Pollution Caused by Spills of Hydrocarbons and Other Noxious and Potentially Hazardous Substances in the Gulf of Mexico and Straits of Florida, done at Havana, on January 9, 2017.

105.4 Containment: Any measure which is taken to control or to restrict the spread of pollution (e.g. booming).

105.5 Coordinating Authority: For the United States, the Coast Guard, with the support of the United States National Response Team and for the Republic of Cuba, the National Civil Defense Headquarters and the Ministry of Transportation, depending on the nature and magnitude of the pollution event.

105.6 Coordinated Response: A response to a pollution event that originates within the Area of one Party to the Agreement and is accompanied by a threat of the pollution spreading into the Area of the other Party to the Agreement, or where the spreading has already occurred. Each Coordinating Authority responds according to its national response system in its country's Area, while sharing relevant operational and technical information with the other Coordinating Authorities. In addition, it may include other forms of coordination, such as the exchange of personnel to facilitate information sharing.

105.7 Incident Action Plan: A statement of the objectives, strategies, and critical functions to be taken in an incident, as described by the International Maritime Organization's *Guidance Document on the Implementation of an Incident Management System (IMS)*, prepared by the OPRC-HNS Technical Group and approved by IMO's Marine Environmental Protection Committee (MEPC) 61.

105.8 Incident Command Post: The field location at which the primary tactical-level, On-Scene Coordinator functions are performed.

105.9 Incident Management System: A method used to develop a response organization that utilizes a structured and flexible process to create an Incident Action Plan to address and meet the identified objectives.

105.10 Joint Planning Team: A planning and advisory group composed of representatives from the United States and Cuba who perform the functions listed in 104.3.

105.11 Joint Planning Team Chair: The respective representative from the United States and Cuba who heads the Joint Planning Team and performs the functions listed in 104.4.

105.12 National Oil and Hazardous Substances Pollution Contingency Plan: The National Contingency Plan for the United States, Title 40, part 300 of the U.S. Code of Federal Regulations. The National Contingency Plan provides the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants in the United States.

105.13 National Readiness and Oil Spill Response Plan: *Plan Nacional de Preparación y Lucha Contra Derrames de Hidrocarburos;* The National Contingency Plan of Cuba put into force according to resolution 144/09 of the Ministry of Transport of the Republic of Cuba, dated 02 June 2009.

105.14 National Response System: The planning, preparedness, and response arrangements established by the Parties to the Agreement for managing discharges of oil or releases of noxious and potentially hazardous substances.

105.15 On-Scene Coordinator/ Coordinator of On-Site Activities: The official(s) designated by the Coordinating Authorities to coordinate and direct response operations, and perform the functions listed in 501.

105.16 Parties to the Agreement: The Government of the United States of America and the Government of the Republic of Cuba, as parties to the Agreement.

105.17 Pollution Reports: A report of the most current information relating to a pollution event, including actions taken, progress made during the response, and intended future actions.

105.18 Response Operations: Actions to control or mitigate a marine pollution event from discharges of hydrocarbons or a noxious and potentially hazardous substance, and to minimize impacts of the event.

105.19 Response Resources: Personnel, equipment, and other assets deemed necessary by the On-Scene Coordinator to conduct response operations or monitoring activities.

# 200 Information Exchanges

200.1 The Coordinating Authorities are expected to exchange both operational and scientific information, during the planning, preparedness and response phases. The Coordinating Authorities also intend to consult with one another on any pollution events described in the Agreement to facilitate a proper coordinated response.

200.2 The Joint Planning Team is expected to exchange information about operations that have an impact on achieving an effective coordinated response, including sub-sea operations for offshore wells, surface operations, air operations, use of chemical dispersants, recovery by mechanical means, in-situ burning, and management and final disposal of waste.

200.3 The Coordinating Authorities intend to exchange the information necessary to formulate models and trajectories for the purpose of analyzing and accurately anticipating the circulation of hydrocarbons and harmful and potentially dangerous substances in the marine environment.

200.4 Information exchanges may take place in any appropriate form, including phone calls, teleconferences, emails, faxes, shared websites, in-person meetings, and/or via Advisory and Liaison Coordinator exchanges.

# 300 Planning, Preparedness, Training and Exercises

300.1 Each Coordinating Authority intends, consistent with its national laws and policies, to promote training opportunities for Joint Planning Team members, On-Scene Coordinators and other personnel as deemed appropriate, to ensure such personnel are trained for the responsibilities of their positions.

300.2 Representatives from the Joint Planning Team and the On-Scene Coordinators intend to meet at least annually to discuss current topics of interest to each Coordinating Authority, to analyze pollution events that have occurred, to plan exercises, and to make recommendations for keeping the Plan current. These meetings may take place more frequently, as deemed appropriate by both Joint Planning Team Chairs.

300.3 The Coordinating Authorities intend to conduct exercises jointly pursuant to this Plan on a four year cycle. Exercises should strive to follow the cycle of: seminar, tabletop, functional and full-scale. Exercise goals may also be met through real world pollution events. Exercise plans are expected to be developed and documented cooperatively. Exercises may be discussion-based or operations-based and may include a test of notification procedures. Exercises may be conducted in conjunction with each Party to the Agreement's respective national exercise program.

300.4 The Joint Planning Team is expected to document exercises and share lessons learned. Lessons learned are expected to be taken into account in the development of future exercises and in modifications to the CUBUS Plan.

300.5 The location or method (if conducted virtually) of meetings and exercises are expected to be mutually determined by the Joint Planning Team Chairs. Summaries of all planning and preparedness activities are expected to be drafted and shared with the Joint Planning Team Chairs, the U.S. Coast Guard Office of Marine Environmental Response Policy (CG-MER), and the National Staff of the Civil Defense and the Maritime Administration of Cuba.

# 400 Plan Activation

The activation of the CUBUS Plan may only occur when:

a. A pollution event, as defined in the Agreement, originates within the Area of one Party to the Agreement and is accompanied by a threat of the pollution spreading into the Area of the other Party to the Agreement, or where the spreading has already occurred;

b. The Joint Planning Team Chair whose Area is initially affected makes written notification to other Party's Joint Planning Team Chair; and

c. By decision between the Joint Planning Team Chairs to conduct a coordinated response.

Notification protocols are detailed in section 601.

# 500 Response Elements

## *501 On-Scene Coordinator*

501.1 In the United States, response operations are monitored and directed by an On-Scene Coordinator designated by the U.S. Coast Guard. The U.S. On-Scene Coordinator may augment his/her response by using public sector or private sector resources according to specific procedures in the National Oil and Hazardous Substance Pollution Contingency Plan.

501.2 In the Republic of Cuba, response operations are conducted by the National Defense Council's Command Center for Disaster Situations, which designates an On-Scene Coordinator that oversees the allocation of resources and the effectiveness of the response, and proposes additional measures, as appropriate, to enhance response efforts.

501.3 The On-Scene Coordinator is expected to notify his/her respective Joint Planning Team Chair of every pollution event that may warrant the activation of this Plan.

501.4 The On-Scene Coordinator is expected to communicate his/her response actions to his/her respective Advisory and Liaison Coordinator, if utilized. In the case of the Republic of Cuba, On-Scene Coordinator is expected to communicate the response measures to the National Defense Council Management Center for disaster situations.

501.5 The intended functions of the On-Scene Coordinator are to:

a. Determine facts, including: the nature, quantity and location of oil and/or hazardous substance; the probable trajectory; the available response resources and those required; the necessary information to determine potential impacts on human health and welfare, marine or coastal environment including natural resources and ecosystems; and the areas that could be adversely affected;

b. Determine priorities and decide if and when to initiate a response;

c. Utilize an Incident Management System to provide for the safe, effective, and efficient management and deployment of resources for the pollution event;

d. Coordinate and direct matters related to the detection and response operations for the pollution event;

e. Recommend activation of a coordinated response to the Joint Planning Team Chair, if appropriate;

f. Recommend to his/her respective Joint Planning Team Chair the exchange of Advisory and Liaison Coordinators for a coordinated response, if needed;

g. Maintain a record of events during a coordinated response;

h. Authorize the use of dispersants and other chemical products in accordance with his/her respective national policy;

i. Coordinate, in consultation with the Joint Planning Team, information to the media;

j. Recommend when to terminate a coordinated response to the Joint Planning Team Chair; and

k. Prepare and submit to the Joint Planning Team a final report of the response to include lessons learned and recommendations for future events, in view of the experience obtained.

### *502 Advisory and Liaison Coordinator*

502.1 An Advisory and Liaison Coordinator is a country's representative who is knowledgeable of his/her country's national response system. This Advisory and Liaison Coordinator acts as a conduit of information between the Coordinating Authorities during a coordinated response, usually through an assignment to the Incident Command Post of the other country.

502.2 Depending on the complexity of the pollution event, more than one Advisory and Liaison Coordinator may be necessary for each country. In the case of using more than one Advisory and Liaison Coordinator, one Coordinator may be designated as the Lead Advisory and Liaison Coordinator to whom Assistant Advisory and Liaison Coordinators report. Alternatively, the use of an Advisory and Liaison Coordinator may not be necessary and the information exchange can occur solely between the On-Scene Coordinators.

502.3 The primary objectives and functions of an Advisory and Liaison Coordinator are to:

a. Enhance cooperation and understanding between the On-Scene Coordinators of the United States and Cuba;

b. Ensure understanding of policy guidance and coordination measures related to the CUBUS Plan;

c. Identify and recommend potential resources and scientific support;

d. Coordinate the exchange of event-specific information as determined by the On-Scene Coordinator; and

e. Maintain a list of critical contacts from which to obtain information in the Advisory and Liaison Coordinator's country of origin.

502.4 Each Coordinating Authority intends to strive to identify suitable persons to serve as Advisory Liaison Coordinators in advance of a coordinated response. The following are recommended criteria to consider, but not required, when an On-Scene Coordinator is selecting, or designating, Advisory and Liaison Coordinators:

a. Thorough knowledge of each Party to the Agreement's incident management system, knowledge of applicable regional and local response plans, and the CUBUS Plan;

b. Oil and hazardous substance response expertise;

c. Familiarity with available industry and government owned equipment;

d. General understanding [knowledge] of international policy and transboundary response implications;

e. Familiarity with U.S. and Cuba customs, health, and safety policies; and

f. Fluency in both Spanish and English.

### *503 Incident Command Posts*

503.1 In the United States the location of an Incident Command Post may vary depending upon the sources of the pollution, the location of impact, or other factors. Once an Incident Command Post has been established, the U.S. Coast Guard expects to relay to National Staff of the Civil Defense Command Center the location and contact information for the facility.

503.2 In Cuba, the Incident Command Post is located in the Command Center of the National Staff of the Civil Defense.

# 600 Response Operations

600.1 Response operations are expected to be conducted in accordance with the provisions and procedures of each Party to the Agreement's National Response System using an incident management system to provide for the safe management and deployment of resources. The national response systems are supplemented by the procedures referenced in this CUBUS Plan. The United States conducts pollution preparedness and response activities under the *National Oil and Hazardous Substances Pollution Contingency Plan.* Cuba responds to pollution events under the *Plan Nacional de Preparación y Lucha Contra Derrames de Hidrocarburos.*

600.2 Actions taken to respond to a pollution event generally consist of four phases. Elements of a phase or an entire phase may take place concurrently with one or more other phases.

### *601 Phase I – Discovery and Notification*

601.1 A pollution event may be discovered through routine surveillance activities, observations by government agencies, by those who caused the pollution, or by observation of the general public. A Coordinating Authority notifies the others using the notification form in Appendix B for pollution events, if there is potential for adverse impacts to the Area of the other Party to the Agreement.

601.2 The U.S. Coast Guard makes notification to National Staff of the Civil Defense of Cuba and the Ministry of Transport. The Ministry of Transportation and /or the National Staff of the Civil Defense of Cuba makes notifications to the U.S. Coast Guard Seventh District Command Center. Points of contact are listed in Appendix C.

601.3 The Coordinating Authorities receiving the notification confirms receipt in writing, via email or fax.

601.4 Notification of a pollution event does not constitute a formal proposal for the initiation of a coordinated response or the activation of this Plan.

### *602 Phase II – Preliminary Assessment and Initiation of Action*

602.1 The U.S. Coast Guard or the National Staff of the Civil Defense and the Ministry of Transport of Cuba On-Scene Coordinator receiving notification of a pollution event in his/her Area that may affect the Area of the other Party to the Agreement immediately assesses the event and commences response operations in accordance with his/her national response system.

602.2 If a coordinated response is requested by the On-Scene Coordinator, the Joint Planning Team evaluates the request and determines whether a coordinated response is appropriate.

602.3 If a coordinated response is deemed appropriate, the Joint Planning Team Chair whose Area is initially affected initiates the coordinated response by written notification to the other Party's Joint Planning Team Chair utilizing the template in Appendix D.

602.4 The Coordinating Authority receiving the notification confirms receipt in writing, via email or fax.

### *603 Phase III – Response measures*

603.1 Response measures anticipated in a coordinated response may encompass:

a. Spill monitoring and trajectory
b. Subsea operations (containment and chemical dispersant application)
c. Vessel operations
d. Air operations
e. Use of chemical dispersants
f. Mechanical recovery
g. In-situ burning
h. Waste management and final disposal

603.2 The existing national decision-making process of each Coordinating Authority is expected to be followed to determine whether non-mechanical response methods are to be used to respond to a pollution event. There is an expectation that the use of response methods which may significantly affect the interest of both Parties to the Agreement will be discussed amongst the Coordinating Authorities.

603.3 Coordinating Authorities are committed to sharing effective, timely, and accurate spill tracking and monitoring information from different means in the best interest of both countries. In addition, the Coordinating Authorities should make the best effort possible to share this information with industries potentially impacted by the spill, including but not limited to marine traffic, tourism outlets and academic and research institutes if needed.

603.4 Regaining control of the spill source can be a highly technical and complex process. For situations involving subsea source control, Coordinating Authorities intend to share information regarding sub-sea operation in their Area and provide in an expeditious manner, adequate resources according to their capabilities. The existing national decision-making process of each Coordinating Authority is expected to be followed when authorizing source control activities. Each Coordinating Authority may provide technical expertise, subject to domestic legal requirements, based upon a request from the other Party.

603.5 Coordinating Authorities intend to endeavor to exchange information and share decisions made at regular and routine intervals to ensure vessel and air operations are closely coordinated. The affected Coordinating Authority may request vessels or aircraft not supporting response operations to alter their course. Likewise, the affected Coordinating Authority may refuse the services of any vessel or aircraft that does not appear to support the overall objective of the response.

603.6 The use of surface chemical dispersants is a response measure that may affect the Parties to the Agreement's Areas, thus Coordinating Authorities are expected to:

a. Coordinate with responding organizations as to the type and location for the application of dispersants;

b. Provide a venue for scientists involved in the response to discuss the most appropriate use of chemical dispersants and the environmental tradeoffs of their use; and

c. Consolidate data on the effectiveness of chemical dispersants applied and maintaining an accurate picture identifying where they have been applied.

The decision to use chemical dispersants should be made by the affected Coordinating Authority. Responding organizations may not apply dispersants in another country's exclusive economic zone, continental shelf, or territorial sea without prior express consent by the affected Coordinating Authority.

As surface hydrocarbons or hazardous substances move from the waters of one Party to the waters of another, the decision to utilize chemical dispersants should remain with the Coordinating Authority in whose Party's exclusive economic zone, continental shelf, or territorial sea the dispersant would be applied, regardless of its original origin.

Responding organizations assisting with the application of chemical dispersants should also coordinate actual operational plans with the vessel control and air control authorities so that activities can be coordinated and de-conflicted with other vessel and aircraft movement.

Coordinating Authorities applying dispersants should establish monitoring procedures with adequately-trained personnel to collect real-time data to determine effectiveness of the dispersant application and to ensure the health and safety of workers involved in response operations. Data collected by a Coordinating Authority are expected to be shared with the other Coordinating Authorities.

603.7 Coordinating Authorities are expected to coordinate the response operations for mechanical recovery. The primary goals of mechanical recovery coordination are:

a. Coordinating with responding countries to determine the optimal locations for mechanical recovery of surface contaminant;

b. Coordinating access of responding resources close to the source of the spill to maximize mechanical recovery opportunities; and

c. Coordinating spotter aircraft directing vessels to the best opportunity for surface oil encounter.

The decision to employ mechanical recovery methods should be made by the affected Coordinating Authority, and responding organizations should not conduct mechanical recovery operations in another country's exclusive economic zone, continental shelf or territorial sea without prior express consent by the affected Party.

As surface hydrocarbons or hazardous substances move from the waters of one country to the waters of another, the decision to utilize mechanical recovery methods should remain with the country in whose exclusive economic zone, continental shelf, or territorial sea the oil is present, regardless of its original origin.

Response organizations assisting with the employment of mechanical recovery resources should also coordinate actual operational plans with the vessel control and air control group so that activities can be coordinated and de-conflicted with other vessel and aircraft movement.

603.8 Coordinating Authorities are expected to coordinate the authorization process to apply in-situ burning. The primary goals of in-situ burning coordination are:

a. Coordinating regarding the location for the use of in-situ burning;

b. Providing a venue for scientists involved in the response to discuss the most appropriate use of in-situ burning and the environmental tradeoffs of its use; and

c. Consolidating data on the effectiveness of in-situ burning and maintaining an accurate picture identifying where it has been utilized.

The decision to use in-situ burning should be made by the affected Coordinating Authority and responding organizations should not perform in-situ burning in another country's exclusive economic zone, or territorial sea without prior express consent by the affected Party.

As surface hydrocarbons or hazardous substances move from the waters of one country to the waters of another, the decision to utilize in-situ burning should remain with the Party in whose exclusive economic zone, or territorial sea the contaminant is present, regardless of its original origin.

Organizations assisting with in-situ burning operations should coordinate actual operational plans with the vessel control and air control authorities so that activities can be coordinated and de-conflicted with other vessel and aircraft movement.

The affected Coordinating Authority utilizing in-situ burning should establish monitoring procedures with adequately trained personnel to collect real-time data to determine effectiveness of the burns. Data collected by a Coordinating Authority are expected to be shared with the other Coordinating Authorities.

603.9 Discussions for coordination as described in the previous paragraphs are expected to be implemented via the Joint Planning Team's exchange of information. Proposals and

recommendations resulting from these discussions and assessment for coordination should be included in the Incident Action Plan.

603.10 The On-Scene Coordinators are responsible for ensuring appropriate waste management and final disposal measures are taken. Final disposal of hydrocarbons, noxious and potentially hazardous substances, and contaminated materials recovered in clean-up operations in the Area of a Party are to be conducted in accordance with the applicable laws of that country.

603.11 The On-Scene Coordinators ensure appropriate decontamination measures are taken. Decontamination of response resources are conducted in accordance with the applicable laws and policies of each country. Best practices and procedures for decontamination are to be shared between the Coordinating Authorities, especially if a resource intends to return to the Area of the other Party to the Agreement.

### *604 Phase IV – Demobilization, Termination and Documentation*

604.1 The On-Scene Coordinators, in consultation with relevant government authorities, communicate intended demobilization actions for response resources consistent with the applicable laws of each Party to the Agreement.

604.2 A coordinated response may be terminated by joint decision between the Joint Planning Team Chairs or unilaterally, based on a recommendation by the respective On-Scene Coordinator.

604.3 For a unilateral termination of a coordinated response, the terminating Joint Planning Team Chair issues a written notification to the other Joint Planning Team Chair. For a joint decision to terminate a coordinated response, the Party to the Agreement with jurisdiction over the Area where the pollution event originated leads the termination process. A template can be found in Appendix D.

604.4 When engaged in a coordinated response, the Coordinating Authorities are expected to document their actions according to their national response system. Section 605 contains information on after-action reporting.

### *605 Reports*

605.1 Pollution reports relay the most current information relating to a pollution event, including actions taken, progress made during the response, and intended future actions. Pollution Reports may be exchanged via the Joint Planning Team or Advisory and Liaison Coordinators, if utilized.

605.2 Pollution Reports are expected to be exchanged at a minimum of once every 24 hours during a pollution event response, unless otherwise decided by the Coordinating Authorities. The current CARIBPOLREP format may be utilized and can be found in Appendix E.

605.3 Within 90 days after the conclusion of a coordinated response, unless otherwise decided, the On-Scene Coordinators intend to prepare a coordinated response after-action report. The Coordinating Authority that initiated the coordinated response may take the lead in preparing the first draft of the report. The Coordinating Authorities may mutually decide upon different arrangements.

605.4 A copy of the after-action report is expected to be submitted to the Joint Planning Team Chairs, and a copy to the U.S. Coast Guard Office of Marine Environmental Response Policy (CG-MER) and to the National Staff of Civil Defense and the Ministry of Transportation of Cuba.

605.5 The after-action report is expected to be used by the Joint Planning Team to inform future response activities and taken into consideration when reviewing and updating plans and operational procedures.

# 700 Funding

## *701 Funding for Responses to Pollution Events*

701.1 Each Coordinating Authority funds its own operations when responding to a pollution event in its Area.

701.2 The cost for any response provided in a requesting Party's Area is expected to be initiated by the requesting Coordinating Authority.

701.3 The providing Coordinating Authority is expected to ensure appropriate documentation is provided in a timely manner, in advance, for the consideration of the requesting Coordinating Authority. The requesting and providing Coordinating Authorities will decide these arrangements in writing and in accordance with their own country's internal processes.

As part of preparedness, the Joint Planning Team will identify, in writing, the appropriate methodology to be used for cost documentation and the estimated cost of response operations.

701.4 All Coordinating Authorities are intended to be responsible for preparing the documentation to be used in their territory for the purpose of recovering costs associated with a response to noxious and potentially hazardous substance incidents.

## *702 Funding for Related Activities*

Each Coordinating Authority is expected to fund its own costs associated with preparedness, planning, training, and exercises not related to a specific pollution event response.

# 800 Administration

## *801 Issue Resolution*

Any issue or dispute arising from the implementation of this Plan is expected to be resolved at the level at which it occurred. If the issue cannot be resolved at the level that it occurred, the Joint Planning Team Chairs should be notified for resolution. Should the Joint Planning Team Chairs be unable to resolve the issue, the U.S. Coast Guard Office of Marine Environmental Response Policy (CG-MER) and the Legal Directorate of the Ministry of Transportation should be promptly notified to resolve the issue via discussion and negotiation.

## *802 Revisions to the Plan*

802.1 The Coordinating Authorities intend to review this Plan every five years or upon the request of any Coordinating Authority. Recommendation for revisions to this Plan may be initiated either during meetings of the Joint Planning Team or via letter exchange between Coordinating Authorities. The persons listed in 104.1, or those with higher authority, have approval authority for all revisions to the Plan.

802.2 The appendices of this Plan may be revised by mutual decision between the Joint Planning Team Chairs, without re-signature of the Plan. All changes are to be documented in the Record of Revisions (page iv) and the Joint Planning Team Chairs are to notify the Chief, U.S. Coast Guard Office of Marine Environmental Response Policy (CG-MER) and the Department of Disaster Reduction of the National Civil Defense Staff and the Maritime Security Directorate of the Cuban Maritime Administration of the revisions.

802.3 This Plan may have as many appendices as needed as lessons learned from actual events or exercises to test the plan are developed or implemented.

# 900 Procedures for Border Clearance

In the event of initiation of a coordinated response in which personnel or equipment is expected to travel from one Party to the Agreement to the other, customs and immigration clearances may be sought by each Coordinating Authority for response resources in accordance with each Party to the Agreement's laws. Defined processes for border clearance are described in Appendix F.

# 1000 Public Information

Subject to its national laws, each Coordinating Authority endeavors to share information with one another and coordinate press releases, information sheets, and other material to be made available to the public or to the media when the CUBUS Plan is activated.

Procedures for coordinating the information are expected to be specified during activation of the CUBUS Plan to ensure consistency in the sharing of information.

## Appendix A. Joint Planning Team Members

| United States | Republic of Cuba |
|---|---|
| - Seventh Coast Guard District Planning and Force Readiness Branch<br><br>- Seventh Coast Guard District Response Advisory Team<br><br>- Coast Guard Sector Key West<br><br>- Coast Guard Sector Miami<br><br>- Coast Guard Sector St. Petersburg<br><br>- Coast Guard National Strike Force Coordination Center<br><br>- Coast Guard Office of Marine Environmental Response Policy<br><br>- Seventh Coast Guard District Scientific Support Coordinator<br><br>- Other Federal, state and/or local agencies, as deemed necessary by the Joint Planning Team Chair or higher authority. | - National Staff of the Civil Defense<br><br>- Maritime Safety Directorate of the Cuban Maritime Administration<br><br>- Border Patrol Headquarters<br><br>- Office of Regulation and Environmental Safety (Ministry of Science, Technology and Environment**)**<br><br>- Other agencies and entities as deemed necessary by the Joint Planning Team Chair or higher authority. |

## Appendix B. Notification Form

| **Pollution Event Notification**<br>**Notificación del suceso de contaminación** | | | | | |
|---|---|---|---|---|---|
| | **Notification**<br>**Notificación** | | | **Request for Consultation**<br>**Solicitud de consulta** | |
| **1. Event Information**<br>**Información del evento** | | | | | |
| 1.a. | Date Submitted<br>Enviado el | | 1.d. | Initiating Country<br>País de origen | |
| 1.b. | Time Submitted<br>Enviada a las | | 1.e. | Number of Pages<br>Número de páginas | |
| 1.c. | Event Name<br>Nombre del evento | | | | |
| **2. Contact Information**<br>**Información de contacto** | | | | | |
| 2.a. | From (Country/Agency)<br>De (País/Agencia) | | 2.e. | To (Country / Agency)<br>Para (País/Agencia) | |
| 2.b. | Name/Position<br>Nombre/Puesto | | 2.f. | Name/Position<br>Nombre/Posición | |
| 2.c. | Fax /Telephone<br>Número de fax o teléfono | | 2.g. | Fax /Telephone<br>Número de fax o teléfono | |
| 2.d. | Email/Correo electrónico | | 2.h. | Email/Correo electrónico | |
| **3. Event Specifics**<br>**Detalles del evento** | | | | | |
| 3.a. | Type of Event (Primary Cause/ Secondary)<br>Tipo de evento (Causa primaria/secundaria) | | | | |
| 3.b. | Event date/time<br>Fecha/hora del evento | | | | |
| 3.c. | Product Type<br>Tipo de contaminante | | 3.e. | Source of Pollution<br>Origen de contaminación | |
| 3.d. | Volume Released (bbls)<br>Volumen derramado | | 3.f. | Max Potential (bbls)<br>Máximo potencial | |
| 3.g. | Is Source Secured?<br>¿Se contuvo el derrame? | *If Yes* -Date/Time/Method Used to Secure<br>*En caso afirmativo* -Fecha / Hora / Método usado para contener: | | | |
| | ☐ **Yes** **Sí** ☐ **No** | *If No* – Mitigation Measures Currently in Place /<br>*Si No* - Medidas de mitigación actualmente en uso: | | | |
| 3.h. | Geographic Location of Event (Port/ Body of Water)<br>Ubicación geográfica del evento (Puerto/Cuerpo de agua) | | | | |
| 3.i. | Position<br>Posición | **Latitude**<br>**Latitud** | | **Longitude**<br>**Longitud** | |
| 3.j. | Potential for transboundary impacts?<br>¿Potencial de impactos transfronterizos? | ☐ **Yes** **Sí** | | ☐ **No** | |
| **4. Acknowledgement of Notification Received**<br>**Acuse de recibo** | | | | | |
| 4.a. | Date/Time Acknowledged<br>Fecha/Hora del reconocimiento | | 4.b. | Name/Agency<br>Nombre/Agencia | |
| 4.c. | Signature<br>Firma | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 4.d. | Comments *(optional)*<br>Comentarios *(opcional)* | | | | |

*Note: The notifying Coordinating Authority, at a minimum, sends Page 1 of this form when making a notification for informational purposes only, marking the "Notification" box at the top. If transboundary implications are present, mark the "Request for Consultation" block and provide additional information (in subsequent pages of this form). Receiving Coordinating Authority acknowledges receipt and returns to Notifying Coordinating Authorities.*
*Nota: La parte notificante debe, como mínimo, enviar la Página 1 de esta forma al hacer una notificación sólo para información, marcando la caja de "Notificación" en el título. Si hay implicaciones transfronterizas, marque el bloque "Solicitud de consulta" y provea información adicional (en páginas posteriores de este formulario). La parte receptora debe garantizar el acuse de recibo y devolver a la parte notificante.*

**5. Incident Command Information**
**Información del Puesto de Mando de Incidentes**

| | | | |
|---|---|---|---|
| 5.a. | Lead Agency<br>Agencia encargada | | |
| 5.b. | Command Post location<br>La ubicación del Puesto de Mando de Incidentes | | |
| 5.c. | Request Advisory and Liaison Coordinator deployment? ¿Requiere despliegue del Coordinador de Asesoramiento y Enlace? | ☐ **Yes**<br>**Sí** | ☐ **No** |

**6. Situation Assessment**
**Evaluación de la situación**

| | | | | |
|---|---|---|---|---|
| 6.a. | Current Assessment<br>Evaluación actual | 6.b. | Complicating Factors<br>Factores de complicación | |
| | | 6.c. | Mitigating Factors<br>Factores atenuantes | |
| | | 6.d. | Additional Factors<br>Factores adicionales | |

**7. Primary Source Information**
**Información de la fuente principal**

| | | | | | |
|---|---|---|---|---|---|
| 7.a. | Name of Vessel/Facility<br>Nombre del buque/instalación | | 7.f. | Length of Vessel<br>Eslora del buque | |
| 7.b. | Flag<br>Bandera | | 7.g. | Draft of Vessel<br>Calado del buque | |
| 7.c. | Owner/Operator<br>Armador/Operador | | 7.h. | Document/Official Number<br>Documento/número oficial | |
| 7.d. | Cargo Type/Amount<br>Tipo de carga/cantidad | | 7.i. | Last Port of Call<br>Último puerto | |
| 7.e. | Fuel Type/Amount<br>Tipo de combustible/cantidad | | 7.j. | Next Port of Call<br>Próximo puerto | |
| 7.k. | Vessel aground?<br>¿Está el buque varado? | ☐ **Yes**<br>**Sí** | ☐ **No** | ☐ **Not Applicable**<br>**No aplica** | |

*Additional vessel(s) involved? If so, attach to end of form.*
*Buques adicionales involucrados? Si afirmativo, adjunte al final del formulario.*

**8. Pollutant Information**
**Información del contaminante**

| | | | | | |
|---|---|---|---|---|---|
| 8.a. | Type of Pollutant<br>Tipo de contaminante | | 8.d. | Amount Spilled<br>Cantidad derramada | |
| 8.b. | Potential Amount/Capacity<br>Cantidad potencial/capacidad | | 8.e. | Sheen/Slick Length & Width<br>Brillo/ largo y ancho de la nata | |

| | | | | | |
|---|---|---|---|---|---|
| 8.c. | Direction of Movement<br>Dirección de movimiento | | 8.f. | Color | |

**9. On-Scene Weather Conditions**
**Las condiciones climáticas en la escena**

| | | | | | |
|---|---|---|---|---|---|
| 9.a. | Air Temperature<br>Temperatura del aire | | 9.d. | Sea State<br>Condiciones del mar | |
| 9.b. | Wind Direction<br>Dirección del viento | | 9.e. | Wind Speed<br>Velocidad del viento | |
| 9.c. | Precipitation Type<br>Tipo de precipitación | | 9.f. | Visibility<br>Visibilidad | |

**10. Response Contractor Information**
**Información de respuesta del contratista**

| | | | |
|---|---|---|---|
| 10.a. | Has the responsible party retained a contractor?<br>¿La parte responsable ha contratado un contratista? | 10.b. | Contractor Name<br>Nombre del contratista |
| | ☐ **Yes** ☐ **No**<br>**Sí** | 10.c. | Contractor Capabilities/Resources requested<br>Capacidades de contratista/Recursos solicitados |

**11. Other Information**
**Otra información**

Additional comments/information (e.g., cause of event, areas impacted, immediate implications, trajectories, maps, charts, forecast weather conditions, etc.)
Comentarios adicionales / información (por ejemplo: causa del evento, áreas impactadas, implicaciones inmediatas, trayectorias, mapas, cartas de navegación, pronóstico del tiempo, etc.):

**12. Secondary Source Information (If needed)**
**Información de la fuente secundaria (si es necesario)**

| | | | | | |
|---|---|---|---|---|---|
| 12.a. | Name of Vessel/Facility<br>Nombre del buque/instalación | | 12.f. | Length of Vessel<br>Eslora del buque | |
| 12.b. | Flag<br>Bandera | | 12.g. | Draft of Vessel<br>Calado del buque | |
| 12.c. | Owner/Operator<br>Armador/operador | | 12.h. | Document/Official Number<br>Documento/número oficial | |
| 12.d. | Cargo Type/Amount<br>Tipo de carga/cantidad | | 12.i. | Last Port of Call<br>Último puerto | |
| 12.e. | Fuel Type/Amount<br>Tipo de combustible/cantidad | | 12.j. | Next Port of Call<br>Próximo puerto | |

| | | | | |
|---|---|---|---|---|
| 12.k. | Vessel aground?<br>¿Está el buque varado? | ☐ **Yes**<br>**Sí** | ☐ **No** | ☐ **Not Applicable**<br>**No aplica** |

## Appendix C. Points of Contact

| United States | Republic of Cuba |
|---|---|
| 24-hour Command Center<br>**Seventh Coast Guard District**<br>Miami, Florida, USA<br>Phone: +1 (305) 415-6818<br>Email: D07-SMB-CMDCENTER@uscg.mil<br>D07-IMTWATCH@uscg.mil | 24-Hour Command Center<br>**National Staff of the Civil Defense**<br>Avenida del Asilo y Final, Casablanca, Regla, La Habana<br>Phone: +53 7 793-7754<br>Email: mtop@dcn.co.cu |
| Incident Management and Preparedness Advisor<br>**Seventh Coast Guard District**<br>Miami, Florida, USA<br>Phone: +1 (305) 415-6676 | 24-Hour Command Post<br>**Ministry of Transportation**<br>Ave. Independencia No. 740, e/ Tulipán y Lombillo, Plaza, Habana, Cuba<br>Phone: +53 7 881-8177 or +53 7 881-2642<br>Email: pmando@mitrans.gob.cu |
| **Office of Marine Environmental Response Policy**<br>U.S. Coast Guard Headquarters Washington, District of Columbia, USA<br>Phone: +1 (202) 372-2234<br>Email: HQS-DG-LST-CG-MER-2@uscg.mil | |
| **Customs and Border Protection**<br>Miami, Florida, USA<br>Phone: +1 (305) 258-5550<br>Key West, Florida, USA<br>Phone: +1 (305) 293-9150 | |

## Appendix D. Coordinated Response Activation/Termination Message Formats

| **Coordinated Response Activation** | |
|---|---|
| **Date** | *Date Time Group (GMT)* |
| **From** | *Name of Joint Planning Team Chair* |
| **To** | *Joint Planning Team Chair* |
| **Subject** | **ACTIVATION OF CUBUS PLAN COORDINATED RESPONSE** |
| **On-Scene Coordinator** | *Name of On-Scene Coordinator, On-Scene Coordinator Agency* |
| **Name of Event** | *Name of Event* |
| **Location of U.S. Incident Command Post** | *Physical location of U.S. Incident Command Post* |
| **Location of Cuba Incident Command Post** | *Physical location of Cuba Incident Command Post* |
| **Situation** | *Describe event and current status.* |
| **Additional Information** | *Describe secondary decision points.* |
| **Point of Contact** | *Contact for follow-up questions/receipt acknowledgement.* |
| **Request acknowledgement of receipt via fax [*fax number*] or email [*email address*].** | |

| Coordinated Response Termination | |
|---|---|
| **Date** | *Date Time Group (GMT)* |
| **From** | *Name of Joint Planning Team Chair* |
| **To** | *Joint Planning Team Chair* |
| **Subject** | **TERMINATION OF CUBUS PLAN COORDINATED RESPONSE** |
| **Name of Event** | *Name of Event* |
| **Situation** | *If the termination is unilateral after Joint Planning Team Chair consultation, specify here. Indicate demobilization of Advisory and Liaison Coordinators or any resources supplied.*<br>*Indicate whether the Joint Planning Team will continue to monitor the situation.* |
| **Point of Contact** | *Contact for follow-up questions/receipt acknowledgement.* |
| **Request acknowledgement of receipt via fax [*fax number*] or email [*email address*].** | |

## Appendix E. Pollution Report Format

| Heading | |
|---|---|
| **Date time group** | *The day of the month as well as the time of day (in GMT) of the message.* |
| **From** | *Lead Agency of the Coordinating Authority that is initiating the message.* |
| **To** | *Other Coordinating Authority(s) Lead Agency* |
| **Subject** | *Name of pollution event and sequential number of the report. (e.g. M/T WEST PASSAGE GROUNDING, Report 001)* |
| **Situation** | |
| **Date and Time** | *Date and time of the event (in GMT)* |
| **Event** | *The nature of the event, such as LOSS OF WELL CONTROL, TANKER GROUNDING, VESSEL COLLISION, etc.* |
| **Outflow** | *The nature of the pollution, such as CRUDE OIL, CHLORINE, DINITROL, PHENOL, etc., as well as the total quantity, in tons, of the outflow and/or the flow rate, as well as the risk of further outflow. If there is no pollution but a pollution threat, the words NOT YET followed by the substance, for example, NOT YET FUEL OIL, should be stated.* |
| **Characteristics of Pollution** | *Indicate type of pollution, e.g., type of oil with viscosity and pour point, packaged or bulk chemicals, sewage. For chemicals, give proper name or United Nations number, if known. For all, give also appearance, e.g., liquid, floating solid, liquid oil, semi-liquid sludge, tarry lumps, weathered oil, discoloration of sea, visible vapor. Any markings on drums, containers, etc., should be given.* |
| **Source and Cause of Pollution** | *For example, from vessel or other undertaking. If from vessel, state whether as a result of a deliberate discharge or casualty. If the latter, give brief description. Where possible, give name, type, size, call sign, nationality and port of registration of polluting vessel. If vessel is proceeding on its way, give course, speed and destination.* |
| **Wind Direction and Speed** | *Indicate wind direction and speed in degrees and miles per hour (MPH). The direction always indicated from where the wind is blowing.* |
| **Tides and Direction of Current** | *Indicate current direction and speed in degrees and knots and tenths of knots. The direction always indicates the direction in which the current is flowing.* |
| **Sea State and Visibility** | *Sea state indicated as wave height in meters. Visibility is in nautical miles* |
| **Drift of Pollution** | *Indicate drift course and speed of pollution in degrees and knots and tenths of knots. In case of air pollution, (gas cloud), drift speed is indicated in meters per second (m/s).* |
| **Forecast** | *For example, arrival on beach with estimated timing. Results of mathematical models, or computer trajectory modeling.* |
| **Reporting Source** | *Indicates who has reported the event. If a ship, ship on scene name, homeport, flag and call sign must be given. Ships on scene can also be indicated under this item by name, home port, flag and call sign, especially if polluter cannot be identified and the spill is considered to* |

| | |
|---|---|
| | *be of recent origin.* |
| **Action Taken** | |
| **Event Surveillance** | *Indicate type of spill surveillance such as aerial or vessel. Number of over flights per day, etc.* |
| **Photographs or Samples** | *Indicates if photographs or samples from the pollution have been taken. Contact numbers of the sampling authority should be given.* |
| **Response Actions** | *Describe the action(s) currently taking place in response to the pollution event.* |
| **Future Plans** | *Describe the action contemplated/being considered in response to the pollution event. Indicate the time of the next anticipated Pollution Report.* |

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## Appendix F. Procedures for Border Clearance

### United States of America Procedures

#### Response from Cuba to the United States

During an emergency, U. S. Customs and Border Protection (CBP) Regulations provide for the movement of work force and equipment from Cuba into the United States. Title 19, United States Code Section 1322 International Traffic and Rescue work, (b) states (in part):

> *The Secretary of the Treasury may provide by regulation or instruction for the admission, without entry and without the payment of duty or tax imposed upon or by reason of importation, of:*
>
> *(1) Aircraft, equipment, supplies, and spare parts for use in searches, rescues, investigations, repairs, and salvage in connection with accidental damage to aircraft;*
>
> *(2) Fire-fighting and rescue and relief equipment and supplies for emergent temporary use in connection with;*
>
> *(3) Rescue and relief equipment and supplies for emergent temporary use in connection with floods and other disasters.*

Pursuant to this section, CBP Regulations may allow pollution response, rescue and relief equipment into the country without payment of duty. Special considerations apply to Cuban-origin equipment and other merchandise entering the United States (see 'U.S. Licensing Requirements' information below).

#### Transactions involving:

***Customs and Excise Procedures for entry into the United States***

When federal involvement becomes necessary in a trans-boundary incident, the U.S. On-Scene Coordinator notifies the CBP Port Director that a coordinated response in accordance with the CUBUS Plan has been initiated.

The CBP Port Director may authorize or direct the expedited entry/clearance for response equipment involved with emergency response with no duty or other fees to be collected.

***Employment and Immigration Regulations into the United States***

The *Immigration and Nationality Act* (Public Law 89-236) provides CBP with the authority to regulate the movement of people across the international borders of the United States. This includes the ability to expedite the movement of emergency workers

from Cuba into the United States, upon request from the United States, to assist the United States in responding to emergencies.

The *Immigration and Nationality Act* provides CBP with the discretion to allow Cuban workers with special skills, who might not otherwise be allowed into the United States, to temporarily enter the United States to assist in the response.

### *Cuban Equipment Entering the United States*

CBP, through the Office of Field Operations, with prior notification, may allow the entry of Cuban response equipment during an emergency without duty in accordance with the regulations.

The U.S. On-Scene Coordinator notifies the CBP Port Director that a coordinated response under the CUBUS Plan has been activated to deal with a spill affecting or threatening the United States. CBP will make best efforts not to delay any appropriately identified vessel or personnel who are responding to an emergency.

Cuban citizens are required to check equipment through CBP prior to leaving the United States. Cuban-flag oil spill recovery vessels must report arrival and make entry when coming into the United States. These vessels may discharge oil recovered from U.S. waters to a U.S. port (SEC.1117. 46 USC § 12101) (P. L. 104-324 §1117).

| **Useful Websites** | |
|---|---|
| Customs and immigration forms | http://www.cbp.gov/newsroom/publications/forms |
| Application for Travel Documents | https://www.uscis.gov/i-131 |
| Shipping agents for water crossings | https://directories.lloydslist.com/services-browse/ss/5696/country/U.S.A. |

### *U.S. Licensing Requirements*

U.S. Department of Commerce, Bureau of Industry and Security (BIS). BIS authorization is required for the export or reexport to Cuba, including Cuban territorial waters, of all items subject to the Export Administration Regulations (EAR) (15 C.F.R. parts 730-774). BIS authorization would also be required for the release of technology subject to the EAR to a Cuban national. BIS maintains that certain U.S. Coast Guard exports and reexports may be eligible for a license exception in 15 C.F.R. § 740.11(b). Other response-related exports or reexports of items subject to the EAR require an individual validated license from BIS. On March 14, 2019, BIS reaffirmed that it generally approves license applications for the export of items necessary for the environmental protection of the U.S. and international air quality, water and coastlines as described in Section 746.2(b) of the EAR. BIS encourages prospective exporters of items for spill response to submit license applications well in advance of an actual spill (i.e., contingency applications) since license applications can take six weeks or more to process.

U.S. Department of the Treasury, Office of Foreign Assets Control (OFAC). As of November 17, 2017, OFAC determined that the U.S. Coast Guard and those persons subject to U.S. jurisdiction acting at the direction of the U.S. Coast Guard On-Scene Coordinator (e.g. contract oil spill response organizations) do not require a specific license to operate in Cuba. In accordance with Title 31, U.S. Code of Federal Regulations, Part 515, activities that fall within the scope of a general license do not require further authorization from OFAC. OFAC confirmed that U.S. Coast Guard operations in Cuba fall within the general license for official business of the U.S. government at 31 CFR 515.562. For information regarding the most up-to-date licensing regulations consult the Licensing Division at 1-202-622-2480 and visit https://www.treasury.gov/resource-center/sanctions/Programs/Pages/cuba.aspx.

## Cuba procedures

### *Response from the United States to Cuba*

Decree law No. 162 "of Customs" of 1996, issued by the Council of State of the Republic of Cuba, and its complementary rules establish the control of the goods that are imported and exported to the country and the means that transport them. In its article 37 it stipulates (excerpt): Import goods are considered as all those which, coming from abroad, enter the national territory, temporarily or definitively, even if they are free of the payment of the customs duties or are granted suspension, exemption or franchise.

During an emergency, the aforementioned Decree Law No. 162, in its Title X of Urgent Shipments, Article 176, indicates the following (excerpt): Urgent shipments shall mean goods, which must be dispatched quickly and preferably by reason of their nature because they constitute relief shipments or because they are in response to a duly justified urgent need. These will follow the procedures of the Customs office ensuring compliance with the provisions of the Customs regulations.

During an emergency declared in connection with an event of pollution of the marine or coastal environment caused by spills of hydrocarbons or other noxious and potentially hazardous substances, the Cuban laws permit the admission, as agreed, of personnel and equipment from the United States to Cuba to respond to the spill.

The head of the Immigration and Aliens Affairs Authority of the Ministry of Interior may decide the admission of personnel from the United States of America to Cuba to carry out response operations regarding the spill of hydrocarbons or other noxious and potentially hazardous substances.

The Minister of Finance and Prices may grant total or partial exemptions from the payment of the customs tax and customs services, where the circumstances so advise, which are duly processed before that Minister through the relevant coordinating Cuban authorities.

The head of the General Customs Office of the Republic is the authority to grant entry, under the temporary importation regime, of equipment and supplies for the coordinated response in the event of a spill of hydrocarbons or other noxious and potentially hazardous substances at sea in maritime areas under Cuban sovereignty or jurisdiction, to be re-exported in the same state.

***Customs and excise procedures for entry to Cuba***

Whenever it is necessary for the Cuban government to intervene in a transboundary event, the On-Scene Coordinator of Cuba shall notify, via the Chief of the National Staff of the Civil Defense, the Chief of the General Customs of the Republic that a coordinated response has been activated in accordance with the CUBUS Plan and that personnel and equipment of the relevant United States institution or the oil spill removal organization will arrive to respond to a spill that affects or threatens Cuba. Following the telephone notification, a fax will be sent to the Command Center of the National Staff of the Civil Defense of Cuba.

The Chief of the General Customs Office of the Republic is notified as soon as possible when any freighter or equipment arrives in Cuba. Notification can be made by telephone, fax, email or other means, if necessary. In order to facilitate the transfer of equipment across the Cuban border back to the United States, the entry points that will be open at the expected time of arrival will be identified in advance.

The head of the General Customs Office of the Republic of Cuba may authorize or order the following:

a. Expeditious entry and clearance process for emergency response team without customs tax collection by established or authorized ports and locations (authorization is valid for 90 days) and require formalization in a given time by admission of temporary importation.

b. Any equipment that enters Cuba at location other than a port of entry (i.e. a port or airport established or authorized by the competent Cuban authorities), must be reported to the General Customs office of the Republic as soon as feasible.

c. The material, equipment and supplies sent from the United States to Cuba must remain under the control of supervision of the relevant United States authority.

d. Equipment entering Cuba must be reshipped and returned to the United States within 90 days unless an extension is granted or other arrangements are made at the time of entry or during the response to the event. It will not be necessary to return the expendable goods to the United States.

e. American citizens must submit the equipment to be returned to the United States for inspection by the Customs Office of the Republic before leaving Cuba.

United States flagged hydrocarbon recovery vessels must notify their arrival and go through the entry process upon entering Cuba.

These vessels can offload the recovered hydrocarbons from the waters of Cuba at the port or Cuban facility previously established by Cuba.

***United States equipment entry to Cuba***

Equipment, materials and supplies that are temporarily imported into Cuba to respond to pollution events may enter the national territory under the customs regime for temporary importation to be re-exported in the same state, which is exempted from the payment of the customs duty. Only the corresponding customs service fees must be paid.

If the importation of any of them is final because there is no interest by the other Party in returning it to its place of origin, the Ministry of Finance and Prices will duly process the preferential tariff to apply to the entity that will take it into home use, which must be requested to that ministry in the established terms.

***Border procedures***

The Cuban legislation in force, sets out in law no. 115/2013 of the Fluvial and Lake Maritime Navigation, the procedures for the clearance of ships, vessels and naval artifacts that arrive at Cuban ports, as well as the Laws no. 1313/76 of Aliens and 1312/76 of Migration and its Regulations encompassed in Decree 26/78, which establishes Cuba‟s migration procedures.

Based on the assessment by the competent Cuban authorities that there exists a transboundary oil spill event, the relevant Cuban institution will notify the United States counterpart of the activation of the CUBUS Plan in accordance with the Agreement.

During a transboundary hydrocarbons spill event, the following abbreviated procedures shall apply:

**I. Submit the following information prior to entry:**

- General statement.
- Roster of crew (vessel, aircraft), valid passports or equivalent travel documents.
- Roster of other personnel, valid passports or equivalent travel documents.
- Weapons and narcotics declaration.
- Hazardous cargo statement, if transported.
- Information established in the International Ship and Port Facility Security Code.

**II. Manner of entry, berthing or anchorage**

- The Port Authority expeditiously approves the form authorizing pilotage.

**III. Clearance Procedures**

- To give *free pratique* by phone.
- Simultaneously carry out port operations and entry clearance expeditiously by the public port authorities.
- The fee will be waived for the issuance of an international certificate granting entry and departure clearance for those ships involved in responding to these types of events.
- Authorize entry of personnel for a period of up to 90 days without charging an extension fee.
- The vessel is subject to inspection by the Cuban authorities upon departure.

# Florida Keys
# Area Contingency Plan
# (FKACP)

## Initial Reporting Form

# Annex P

May 2022

## Record of Changes

| Change Number | Change Description | Section Number | Change Date | Name |
|---|---|---|---|---|
| 1 | | | | |
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# 1000 Initial Reporting Form

See SKW Pollution Incident QRC.

# Florida Keys
# Area Contingency Plan
# (FKACP)

## Risk Analysis: Shoreline Cleanup Methods

# Annex AA

May 2022

## Record of Changes

| Change Number | Change Description | Section Number | Change Date | Name |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
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# 1000 Introduction

The best cleanup method for a particular shoreline segment will be determined during the shoreline assessment process. Teams will usually visit each contaminated shoreline segment and inventory the geological and ecological resources in order to select the most appropriate cleanup method(s). This annex provides shoreline cleanup matrices for use in the selection process of a particular cleanup method(s).

# 2000 Major Shoreline Types

A total of 12 types of shorelines were identified for the purposes of oil spill cleanup recommendations in the Florida Keys. Each shoreline type describes the nature of the land/water interface and intertidal zone. Each shoreline type is not intended to represent a coastal landform, although in some cases a shoreline type may be a landform. From the perspective of developing a relevant oil spill shoreline classification, all coastal landforms have shorelines. A knowledge of the coastal landform shoreline is important for trafficability, access, habitat sensitivity, oil behavior, and cleanup method selection. In all cases, spilled oil that reaches the shoreline impacts the intertidal zone, in some cases storms can disperse the oil onto subaerial surfaces. This is the reasoning used in developing the shoreline classification specifically for oil spill cleanup assessment and operations focused on the intertidal zone. The following sections describe each of the 12 shoreline types, providing information on physical characteristics, distribution, sediment texture, and landform associations within the Florida Keys. There may be some cases where different shoreline types overlap. This overlapping structure occurs when a coastal landform has multiple shoreline types. An example of this is a prograding river delta where freshwater marsh and forested swamps are fronted by muddy tidal flats. Overlap may also be a function of seasonal variability, a summer fine sand beach versus a winter fine sand perched beach. Similar shoreline types are faced with similar response strategies and cleanup methods. On a shoreline cleanup operation, the knowledge of the types and amounts of shoreline oiled will allow you to accurately forecast manpower and logistical needs rapidly and accurately.

# 2100 Shoreline Type Definitions

## 2101 Coastal Structures

The coastal structure classification describes the variety of man-made hard structures that can be found on the shoreline. This classification includes seawalls, jetties, breakwaters, groins, piers, port facilities, pipelines, and oil and gas facilities. The typical construction material and texture include rock, steel, wood, and concrete.

- Seawalls are coastal protection structures built parallel to shore and constructed of rock or concrete rip rap, concrete textiles, wood or concrete wall, or just debris and junk such as old cars.
- Jetties are shore-normal navigation structures typically built of rock rip rap.
- Breakwaters are shore-parallel, segmented seawalls that are placed in the surf to retard coastal erosion. Breakwaters are built of rock rip rap and wood.

- Groins are short, shore-normal coastal structures that extend from the shoreline into the surf zone in order to trap sediment and slow coastal erosion. The typical construction material is wood.
- Piers describe shore-normal and shore-parallel structures that provide a working platform extending from the shore. The typical construction technique is wood or concrete pilings supporting a deck.
- Port facility is used to describe major developed waterfronts built of seawalls, piers, and other coastal structure types. The primary construction materials include steel, rock, wood, and concrete.
- Numerous pipelines make landfall and associated with them are typically a small timber or rock seawall protecting the dredging access area.
- Oil and gas facilities occur throughout the area and consist of platforms, tank farms, production plants and more. Primary construction materials are steel, concrete wood, and rock.

The environmental sensitivity of coastal structures is low because of the limited habitat these features create and the amount of animal and plant colonization they attract. Oil typically coats these structures and the sparse plant and animal life associated with them. Oil penetration is limited to surface roughness features and cracks. Some of the major cleanup concerns are logistics and the recovery of treated oil. This environment typically can handle the use of intrusive cleanup techniques such as low and high pressure wash.

## 2102 Bluffs

The bluff classification is used to describe a shoreline backed by an eroding bluff and fronted by a narrow sand beach. The bluff erodes by slope failure and wave undercutting. Narrow beaches are a mixture of fine and coarse sand as well as organic debris. In many cases, the slope failure process deposits trees, shrubs, scrubs, and man-made features such as roads and homes onto the shoreline. The fringing beaches tend to be moderately sloping with a distinct storm berm and multiple nearshore bars on a shallow platform.

The environmental sensitivity of this shoreline type is low due to limited plant and animal colonization. Oil typically stains the sediments and the nearshore debris. The sediment penetration potential is low due to a high water table. Some of the cleanup concerns center on poor access and trafficability.

## 2103 Fine Sand Beaches

The find sand beach classification describes beaches with low slopes and a grain size of 0.0625 to 0.200 mm. These beaches can be natural or man-made. Generally, there is always a low percentage of shells and shell hash. Typical beach widths are 20 – 100 m.

Fine sand beaches have a low sensitivity to oil spill impacts and cleanup methods. Oil typically stains and cover the beach sands. The penetration is low to moderate depending on the water table and the position of the oiling on the shoreline. A major environmental concern during beach cleanup is the protection of the dune habitat from the cleanup operations. Fine sand beaches typically have poor access, but good trafficability. Fine sand beaches are relatively easier to clean

in contrast to marshes. Large volumes of stained sand and debris can be generated by beach cleanup.

## 2104 Coarse Sand Beaches

The coarse sand beach classification describes beaches with moderate slopes and grain of 0.2 – 0.4 mm. These beaches can be natural or man-made. Generally, there is always a low percentage of shells and shell hash. Typical beach widths are 10 – 50 m. There are no true coarse sand beaches in Louisiana due to the character of the sediment load in the Mississippi River.

The environmental sensitivity of coarse sand beaches is low due to the limited animal and vegetation population. Spilled oil typically stains and coats coarse grain beach sands. Sediment penetration on coarse grain beaches is moderate/high depending on the water table and the location of oil deposition. A major environmental concern is the protection of the dune habitat from cleanup operations. The trafficability of this shoreline type is less than fine sand beaches because the bearing strength is lower and this type of sand builds steep beach faces. Access is typically poor.

## 2105 Shell Beaches

The shell beach classification is used to describe shoreline types comprised almost entirely of shell. The shell material may be in the form of shell hash or whole shells. The sources for the shells include the nearshore zone or back barrier areas. Shell beaches form extremely steep beach faces because of the coarse shell fragments and whole shells making up the shoreline.

The environmental sensitivity of shell beaches is moderate due to the use of this shoreline by estuarine organisms and extensive wash over terrace development. Oil typically stains and coats the shell hash and whole shells comprising the beach. The oil penetration is high due to the porous beach character created by the shell material. This beach type quickly turns into an asphalt payment under heavy oiling conditions. Shell beaches have poor trafficability due to the low bearing strength and steep beach face.

## 2106 Perched Sand Beaches

The perched sand beach classification is used to describe a shoreline type where a thin sand beach (fine or coarse) overlies a fresh marsh or salt marsh with an eroded marsh platform outcropping in the surf zone. Perched sand beaches can occur as a continuous straight shoreline or as a series of contiguous pocket beaches. Organic and shell debris is common to this shoreline type. Where the marsh platform outcrops on the shoreline, it can become revegetated by marsh grass. Perched sand beaches are erosional. It is the erosion of a marsh shoreline that produces a thin low prism of sand that overlies the eroded marsh outcrop.

The environmental sensitivity of perched sand beaches is moderate due to the presence of wetland habitat. Oil typically coats and covers sediment and vegetation. The sediment penetration potential is low/moderate depending on the water table level and sediment thickness. A major environmental concern in the cleanup of wetland habitat associated with perched sand beaches. This shoreline type is characterized by poor trafficability and access.

## 2107 Perched Shell Beaches

The perched shell beach classification is used to describe a shoreline type where a thin shell beach overlies a fresh or salt marsh with an eroded marsh platform outcropping in the surf zone. Perched shell beaches can occur as a continuous straight shoreline or as a series of contiguous pocket beaches. Organic debris is common to this shoreline type. Where the marsh platform outcrops on the shoreline, it can become revegetated by marsh grass. Shell beaches are erosional. It is the erosion of a marsh shoreline that produces a thin prism of shell material that overlies the eroded marsh outcrop.

The environmental sensitivity of perched shell beaches is moderate due to the presence of wetland habitat. Oil typically coats and covers sediment and vegetation. The sediment penetration potential is moderate/high depending on the water table level and sediment thickness. A major environmental concern is the cleanup of wetland habitat associated with perched shell beaches. This shoreline type is characterized by poor trafficability and access.

## 2108 Sandy Tidal Flats

The sandy tidal flat classification is used to describe shoreline types comprised of broad intertidal areas consisting of fine and coarse grain sand and minor amounts of shell hash. The mean grain-size ranges between 0.0625 mm and 0.4 mm. Sandy tidal flats are typically found in association with barrier island and tidal inlet systems. Sandy tidal flats are submerged during each tidal cycle. At low-tide, a typical sandy tidal flat may be 100 – 200 m wide. The most common sandy tidal flat occurrences are associated with flood-tidal deltas, recurved spits, and backbarrier areas. Salt marsh vegetation often develops along the upper intertidal areas of sand flats. Due to the low tidal flat gradient, slight changes in water levels can produce significant shoreline changes. Low water levels can expose extensive tidal flat areas to oiling.

The environmental sensitivity of sandy tidal flats is moderate due to the presence of wetland habitat. Oil typically stains and covers sediment and vegetation. The oil penetration potential is low/moderate depending on the water level and the location of oil deposition. The trafficability of sandy tidal flats is moderate/good depending on substrate character. Major environmental concerns related to cleanup include the protection and cleanup of wetland habitat and further subsurface contamination due to trampling and equipment movement.

## 2109 Muddy Tidal Flats

The muddy tidal flat classification is used to describe shoreline types comprised of broad intertidal areas consisting of mud and minor amounts of shell hash. The grain size is finer than 0.0625 mm. Muddy tidal flats are typically found in association with prograding river mouths. Muddy tidal flats are soft, dynamic shorelines rich in newly developing habitat. Mudflats located at prograding river mouths are vegetated by willow tree and sugar cane swamps. Prograding mudflats on the coast are vegetated by lush growths of salt marsh.

The environmental sensitivity of muddy tidal flats is high due to presence of developing wetland habitat. Oil usually coats and covers sediment and vegetation. The sediment penetration potential is low due to the high water table and water content in the sediment. The major environmental concern associated with muddy tidal flats is the damage done by the cleanup of wetland habitats as well as their protection from cleanup operations. Both access and trafficability of muddy tidal

flats is poor. The potential exists for further contamination of subsurface sediments due to trampling and equipment movement.

## 2110 Swamps

The swamp classification describes shoreline types that are comprised of scrubs, shrubs, evergreen trees, and hardwood forested wetlands. This shoreline type is essentially a flooded forest. This shoreline type is common in the river valleys of the chenier plain, and the interior areas of the delta plain. The sediments within the interior swamps tend to be silty clay and contain a large amount of organic debris.

The environmental sensitivity is high for swamps because of the presence of wetland habitat. Oil usually coats and covers the sediment and vegetation. The sediment penetration potential is low due to the high water table and the water content of the sediments. A major environmental concern is that the cleanup may be more damaging than the oil itself. The access and trafficability of swamps are poor due to the soft sediment and the presence of dense tree growth.

## 2111 Fresh Marshes

The fresh marsh classification is used to describe shoreline types found in the coastal interior. Freshwater marshes include floating aquatic mats, vascular submerged vegetation, needle and broad leaved deciduous scrubs and shrubs, and broad leaved evergreen scrubs and shrubs. The sediments are highly organic and muddy. Fresh marshes are characterized by high biodiversity and rich wetland habitat. This shoreline type is found within the river valleys that dissect the chenier plain as well as between the individual ridges. On the delta plain, freshwater marshes occur in the upper reaches of individual delta complexes as well as along distributary courses.

The environmental sensitivity of fresh marshes is high because of the presence of wetland habitat. Oil usually coats and covers the sediment and vegetation. The sediment penetration potential is low due to the high water table and water content of the sediments. A major environmental concern about fresh marsh is that the cleanup can be more damaging than the oil itself, left alone. Access to fresh marshes is typically poor due to the soft sediment. Trafficability of fresh marsh is poor due to the soft sediment.

## 2112 Salt Marshes

The saltwater marsh classification describes shoreline types that are wet grasslands vegetated by salt-tolerant species. This shoreline type includes saline, brackish, and intermediate marsh types. Saltwater marshes are extensive throughout the outer fringe of the chenier and delta.

The environmental sensitivity is high for salt marsh because of the presence of wetland habitat. Oil usually coats and covers the sediment and vegetation. The sediment penetration potential is low/moderate due to the high water table and water content of the sediment. A major environmental concern is that the cleanup may be more damaging than the oil itself. The trafficability of salt marsh is poor. Access is typically poor in Louisiana.

# 2200 Shoreline Resources at Risk

## 2201 Marshes and Mangroves

The dominant natural shoreline type from Everglades City to Elliott Key is exposed mangroves. Red, black, and white mangroves dominate the intertidal forests of Florida. Exposed salt marshes occur along the northern shore of Florida Bay (from East Cape to Big Key) and in the shallow flats north of the Lower Keys. Sheltered salt marshes occur inland of the mangrove forests along the west coast of the mainland peninsula and sporadically throughout the rest of the area covered.

Oil adheres readily to intertidal vegetation. The location and vertical width of coating is dependent on the water level at the time oil is in the vegetation and can vary widely. There may be multiple bands. Oil can wash through mangroves if oil comes ashore at high tide. If there is a berm or shoreline present in front of the mangroves, oil tends to concentrate and penetrate into the berm sediments or accumulated wrack/litter. Heavy and emulsified oil can be trapped in thickets of red mangrove prop roots. The oil will likely adhere to prop roots, tree trunks, and pneumatophores, particularly on dry surfaces. The oil could also adhere to and foul attached biota on the prop roots.

## 2202 Tidal Flats

Large areas of sheltered tidal flats occur inland of mangrove shorelines along the southeast shoreline of the mainland peninsula from Little Madeira Bay to Card Sound. Exposed tidal flats are present on Bahia Honda Key, Vaca Key, and Lower Matecumbe Key. Oil does not usually adhere to the surface of exposed or sheltered tidal flats, but rather moves across the flat and accumulates at the high-tide line. Deposition of oil as sheen or tarballs on the flat may occur on a falling tide. Stickier tarballs may adhere to the substrate and not refloat with the rising tides. Oil will not penetrate the water-saturated sediments, but could penetrate burrows and mud-cracked sediments of sheltered tidal flats.

## 2203 Beaches

Small, isolated coarse-grained sand beaches and shell hash are interspersed throughout the mangrove forests across the region. On the western coast of the peninsula, larger reaches of coarse-grained sand beaches are present at Highland Beach and the capes surrounding Lake Ingraham. Coarse-grained sand beaches comprise most of the shoreline of the Dry Tortugas. Sand beaches (mostly coarse sediments) are found bordering the Straits of Florida on the Marquesas, Key West, Big Pine Key, Grassy Key, Upper and Lower Matecumbe Keys, and Largo Key. Fine-grained sand beaches are found on Bahia Honda Key and Ohio Key. Sheltered areas of mixed sand/gravel beaches occur in the Lower Keys.

Light oil accumulations will be deposited as oily swashes or bands along the upper intertidal zone. Soft, emulsified oil is expected to stick to and stain the porous surfaces of carbonate shell and fill material. Heavy oil accumulations will cover the entire beach surface; oil will be lifted off the lower beach with the rising tide. Maximum oil penetration is about 10 cm in fine-grained sediments and 20 cm in coarse-grained sediments. Tarballs and tar patties may strand along outer coast beaches. In the hot sun, the tarballs and patties can partially “melt” into the upper layer of sand. Again, depending on how sticky the tarballs and tar patties are, they may adhere to sand or shell substrate, become coated with sediment, and not refloat with the rising tide. Waves can accelerate this process by rolling the tarballs along the beach face. If they become heavy enough, they can accumulate in the nearshore subtidal zone, usually between the toe of the beach and the first

offshore bar. Tarballs and patties can become buried during depositional cycles; therefore, rapid removal is important. The potential for penetration and burial is greater on coarse-grained sand beaches compared to fine-grained sand beaches.

### 2204 Exposed and Sheltered, Solid, Man-made Structure, Riprap, and Limestone Bedrock

Solid man-made structures (seawalls) and riprap structures are common along inhabited portions of the Keys. Areas with an especially high density of seawalls include Key West, Stock Island, Vaca Key, Duck Key, Lower Matecumbe Key, Plantation Key and Largo Key. Some seawalls are present on the southwestern shore of Biscayne Bay. Exposed limestone bedrock occurs intermittently throughout the Keys. Larger areas are present on the Dry Tortugas, Indian Key, Upper Matecumbe Key, Plantation Key, and Largo Key. Often, access canals are cut into the limestone bedrock. The more populated keys also have extensive marinas, docks, and riprap amongst the seawalls and more natural habitats.

Oil adheres readily to rough surfaces such as riprap. Deep penetration of oil/tarballs between riprap boulders is likely, and could cause chronic oil leaching. Oil will adhere readily to the rough surfaces of exposed and sheltered manmade structures/seawalls, particularly along the high-tide line, forming a distinct oil band. The lower intertidal zone usually stays wet (particularly if algae covered), preventing oil from adhering to the surface. Bedrock platforms have an irregular surface with many crevices. Emulsified oil and tarballs will accumulate in wrack and depressions in bedrock platforms at the high-tide line. Tarballs tend to melt into crevices and depressions, persisting for longer periods.

## 2300 Biological Resources at Risk

### 2301 Birds

Bald eagle and osprey species of special concern (SSC) nests are present along the Gulf shore of the area, from Everglades City to Manatee Bay, and in the Lower Keys (Key West National Wildlife Refuge (KW NWR)). Osprey nest year round and eagles nest November-June. Double crested cormorants and brown pelicans are abundant in nearshore waters year round. Cormorants may be nesting March-August. Wading birds and diving birds may be nesting in high numbers through the summer and into the fall throughout the marsh and mangrove islands in the area. Other diving ducks and birds (e.g., loons, mergansers, buffleheads, and redheads) winter in the area. Northern gannet may be found offshore in low numbers from December to April. Several species of shorebirds are utilizing keys most of the year, with lower numbers typical in June and July.

Dry Tortugas, Marquesas Keys, and Key West NWR: These islands support a tropical fauna not observed elsewhere in the region, and are important nesting grounds for a variety of species. Birds present in waters in these areas include: blue-faced booby, brown booby, brown pelican, common loon, double-crested cormorant, magnificent frigatebird, northern gannet, peregrine falcon, red-breasted merganser, and white-tailed tropicbird. Shorebirds and diving birds are present on the keys year round. Raptors may be migrating through the area (e.g., northern harrier, peregrine falcon, sharp-shinned hawk).

Specifics by geography are described in the table below. The state and federal statuses are listed in parentheses next to the first time a species name is mentioned (e.g. FT/FE or ST/SE: listed federally or state threatened or endangered, SSC: State Species of Special concern).

**TABLE 1: BIRD NESTING AND CONCENTRATION AREAS**

| LOCATION | SPECIES | SEASONALITY<br>*Species not listed are present year round* |
|---|---|---|
| Gullivan Bay | White pelican, least tern (ST), and roseate tern (FT) | Pelican: Dec-Jul<br>Least tern: Mar-Sept (nest Apr-Aug) |
| Northwest Cape | Least tern, white-crowned pigeon (ST) | Least tern: Mar-Sept (nest Apr-Aug) |
| Pavilion Key | Brown pelican (250 birds; SSC) | Year round |
| Lake Ingraham | Shorebirds | Year round (lower numbers in summer) |
| Whitewater Bay | Wood stork (FE) | Year round (nest Nov-May) |
| Cuthbert Lake and Everglades | Wood stork (FE) | Year round (nest Nov-May) |
| Manatee Bay (Everglades) | Roseate spoonbill (SSC) | Year round (nest Nov-Dec) |
| Rankin and Santini Bights, Madeira Bay | White-crowned pigeons (ST) | Year round (May-Oct) |
| Florida Bay Keys: Tern Keys, Park Key, DWS King Key, Bob Allen Keys, Cluett Key, Oyster Keys, Frank Key, and Sandy Key | Roseate spoonbill (SSC), least tern (ST), white ibis (SSC), tricolored heron (SSC), little blue heron (SSC), snowy egret (SSC), reddish egret (SSC), white-crowned pigeon | Nesting seasons<br>Feb-Jul: tricolored heron<br>Feb-Sept: little blue heron<br>Mar-May: white ibis<br>May-Oct: white crowned pigeon<br>Nov-Dec: roseate spoonbill<br>Dec-Aug: snowy egret<br>Dec-June: reddish egret |
| Everglades | Peregrine falcon | Sep-May |
| Dry Tortugas | Brown noddy, brown pelican, magnificent frigatebird, roseate tern (FT), sooty tern, blue-faced booby | Nesting seasons<br>Mar-Oct: brown noddy (present Mar-August)<br>Feb-Apr: frigatebird<br>May-Aug: royal tern<br>Apr-May: blue-faced booby (present Apr-Aug)<br>Nov-Sep: brown pelican |
| Marquesas Keys | Magnificent frigatebird, white-crowned pigeon (ST), little blue | Nesting: Spring through Fall |

| | | |
|---|---|---|
| | heron (SSC), white ibis (SSC), great white heron, wading birds | |
| Key West NWR | Great blue heron, reddish egret (SSC), black-necked stilt, least tern (ST), piping plover (FT), royal tern, magnificent frigatebird, laughing gull, ruddy turnstone, sanderling, semipalmated plover, short-billed dowitcher, white-crowned pigeon, great white heron, great egret, yellow-crowned night-heron | Piping plover: Jul-Mar<br>Nesting<br>Nov-Jul: great blue heron<br>Dec-Jun: reddish egret<br>Jun-Nov: least tern<br>Apr-Sept: black-necked stilt |
| Key West | Least terns (ST) ~ 900 birds, roseate tern (S/F T/T), white-crowned night-pigeon (ST) | Least tern: Mar-Sept (nest Apr-Aug) |
| Great White Heron National Wildlife Refuge (Key West to Seven mile Bridge) and Pelican Shoal | White-crowned pigeon (ST), little blue heron (SSC), white ibis (SSC), great blue heron, great white heron, great egret, snowy egret, yellow-crowned night-heron, mangrove clapper rail, roseate spoonbill (SSC), tricolored heron (SSC), green-backed heron, cattle egret<br><br>Piping plover, black-necked stilt laughing gull, ruddy turnstone, sanderling, semipalmated plover, short-billed dowitcher, black-bellied plover, willet, western sandpiper<br><br>Least tern, royal tern, bridled tern, roseate tern (ST), gulls<br><br>Peregrine Falcon | Least tern – Mar-Sept (Apr-Aug)<br>Peregrine falcon - wintering<br>Nesting<br>Nov-Jul: great blue heron<br>Spring-Fall: other wading birds |
| Pelican Shoal | Bridled tern and roseate tern (S/F T/T; 500 birds) | May-Aug |

| | | |
|---|---|---|
| Marathon to Key Largo | Brown pelican, double-crested cormorant, great blue heron, least tern, great egret, roseate tern, white-crowned pigeon, roseate spoonbill, bald eagle, osprey, laughing gull, Wilson's plover, anhinga, green-backed heron, little blue heron, reddish egret, roseate spoonbill, snowy egret, tricolored heron, white ibis, greater yellowlegs, lesser yellowlegs, and willet | Wading birds nest spring to fall except great blue heron (Nov-Jul)<br><br>Least terns: Mar-Sept, nest Apr-Aug<br><br>Piping plover: wintering |
| Craig Key | Piping plover | Wintering |
| Lower Biscayne Bay | Shorebirds, magnificent frigatebird, least tern, Wilson's plover, brown pelican, double-crested cormorant, great blue heron, great egret, snowy egret, and white-crowned pigeon | Present year round |

All birds are at significant risk of oiling from emulsified oil. At greatest risk are those who spend most of their time on the water surface, such as pelicans and ducks. Direct oiling of birds reduces the buoyancy, water repellency, and insulation provided by feathers, and may result in death by drowning or hypothermia. Preening of oiled feathers may also result in the ingestion of oil, resulting in irritation, sickness, or death. Gulls and terns do not appear to avoid oil while feeding in nearshore areas, particularly if the oil is weathered. During the nesting season, they could bring oil back to the nests.

## 2302 Fish

Habitats found in the Florida Keys support high diversity and abundance of fish. Federally endangered smalltooth sawfish are present throughout the Everglades and in the northern part of Florida Bay. Mangroves are important habitats for juvenile sawfish and many other inshore and offshore species. A list of fish commonly found in South Florida estuaries is in table 2, and is focused on economically important species or ecologically sensitive species.

**TABLE 2: DISTRIBUTION AND LIFE HISTORY INFORMATION FOR SPECIES COMMONLY FOUND IN THE SOUTH FLORIDA ESTUARIES**

| LOCATION | ADULT (A), LARVAL (L) AND JUVENILE(J) PRESENCE IN SOUTH FLORIDA ESTUARIES |
|---|---|
| Florida Bay Estuary | *Resident species*: hardhead catfish (spawn May-Aug), silversides, silver perch (spawn during summer), code goby, snook (spawn in inlets), crevalle jack, bull shark (mate during summer), spotted seatrout (spawn during summer), Spanish mackerel, black drum (L: Aug-Mar), red drum (L: July-Mar), sheepshead (L: May-July), pinfish (L: Nov-Apr), striped mullet (L: Jan-Mar), Florida pompano (J: Mar-Oct) |

| | |
|---|---|
| | *Estuarine nursery, adults transient:* tarpon (A: Fall-Spring), yellowfin menhaden (L: Dec-May, adults not present), gray snapper (adults not present)<br>*Transient:* gulf flounder (A: Mar-Oct, L:Dec-Mar, J: Feb-Nov,), bluefish (A, J: Apr-Jun) |
| Biscayne Bay Estuary | *Resident:* Ladyfish, bay anchovy, Atlantic silversides, spotted seatrout (all life stages present year round), gulf flounder (L: Oct-Feb), spot (L: Dec-May), pinfish (L: Dec-Apr), gray snapper (L:May-Sept)<br>*Transient:* Spanish mackerel (L:Feb-Apr, A:Sept-Apr)<br>American eel (adults winter in estuary, no juvenile or larval presence) |

Many commercially/economically important species are associated with reef habitats, including black grouper, red grouper, goliath grouper, gag grouper, scamp, gray snapper, red snapper, hogfish, lane snapper, yellowtail snapper, greater amberjack, lesser amberjack and barracuda. In general, the snapper-grouper species spawn during the summer. Mangroves and seagrass beds are important nursery areas for some of these species. In the Florida Keys, 14 reef-associated fishes are known to exhibit spawning aggregation behavior. Spawning aggregations can be found in the Upper Keys, Lower Keys, and Dry Tortugas, including Riley's Hump in the Tortugas Ecological Reserve.

The Gulf Stream is important habitat for many prized game fish. Sailfish, skipjack tuna, yellowfin tuna, bluefin tuna, and swordfish all spawn in the Gulf Stream in the spring. Larvae and juveniles of these species are likely present in the Gulf Stream at this time, and can be associated with *sargassum* mats. Juvenile jacks and triggerfish have also been found in floating *sargassum* mats. Adult blue marlin, white marlin, sailfish, yellowfin tuna, swordfish and wahoo can be found in this region at different times of the year. Species such as wahoo that feed in surface waters could potentially ingest oil while feeding either incidentally or ingesting oiled prey.

There are four ESA listed fish species present in the region: Nassau grouper (FT), smalltooth sawfish (FE), oceanic whitetip shark (FT), and giant manta ray (FT).

Emulsified oil that becomes trapped in marshes/mangroves or other important nursery areas (e.g., seagrasses) may affect early life stages of fish that are found in shallow vegetated waters. Ingestion of oil and/or oil adhesion to gill tissues could also cause sublethal reductions in health to adult fish. Surface oil can also accumulate in floating *sargassum* mats, which are important habitat for eggs, larvae and juveniles of pelagic species.

## 2303 Invertebrates

Invertebrates in the region are highly diverse and comprise a large portion of the marine fauna inhabiting all habitat types. Resident phyla include, but are not limited to, Cnidaria (corals, sea anemones, jellyfish), Platyhelminthes (flatworms), Porifera (sponges), Annelida (segmented worms), Arthropoda (crustaceans), Ectoprocta (bryozoans), Mollusca (bivalves and snails), and Echinodermata (sea stars, sea urchins, and sea cucumbers).Crabs, shrimp, lobsters, and bivalves are found throughout the area. There are seven coral species in the region listed as threatened under the ESA: elkhorn, staghorn, pillar, rough cactus, lobed star, mountainous star, and boulder star

corals. There are two ESA listed terrestrial invertebrates: Miami blue butterfly (FE) and Stock Island tree snail (FT). Specifics on their geography and life history are included in Table 3.

**TABLE 3: DISTRIBUTION OF ECONOMICALLY IMPORTANT OR THREATENED INVERTEBRATES**

| SPECIES | RANGE/HABITAT | CONCENTRATION | LIFE HISTORY NOTES |
|---|---|---|---|
| Blue crab | Coastal waters throughout the entire study area | High: Coastal GOM and Atlantic Ocean<br>Medium: Florida Bay<br>Low: Biscayne Bay | Spawn year round |
| Shrimp (brown, white, pink, royal red, and rock) | All coastal waters | High: GOM, Florida Bay, Dry Tortugas to Key Largo<br>Med: Upper Keys to Biscayne Bay | Spawn Mar-Nov<br>Juveniles/larvae present year round in Florida Bay |
| Stone crab | Present in all coastal waters, associated with structure | High: Florida Bay, Gulf side of the Keys<br>Med: coastal Atlantic | Spawn Mar-Oct |
| Spiny lobster | Coastal waters except upper Florida Bay; often associated with structure | Very high: Keys coastal waters<br>High: Keys reefs<br>High: Biscayne Bay<br>High/med: Coastal GOM | Spawn Mar-Aug |
| Atlantic bay scallop | Florida bay waters N. of Upper Matecumbe Key | Medium concentration throughout range | Spawn Sep-Dec |
| Queen conch | Keys coastal ocean, reef habitats | Common along ocean side of keys from Marquesas to Elliott Key; large areas of habitat around Bahia Honda & Big Pine Key | Spawn Mar-Oct |
| Coral | All coastal waters | High: Coastal GOM, Atlantic Ocean, and Biscayne Bay<br>Medium: Florida Bay | Spawn Aug-Sep |

Emulsified oil that becomes trapped in marshes/mangroves and other nursery areas may affect early life stages of invertebrates that are found in shallow vegetated waters (e.g., increase larval mortality). If the oil is weathered, as expected, by the time it reaches reef and other nearshore habitats, the toxic fractions that might normally cause lethal effects to invertebrates should be limited. However, even patches of stranded oil could be a source of contamination of motile organisms such as crabs and snails. In large quantities, the oil may cause smothering of some species, particularly those in shallow, nearshore waters.

## 2304 Reptiles

Five species of federally listed sea turtles are present in the Florida Keys, including Kemp's ridley sea turtle (FE), green sea turtle (FE), loggerhead sea turtle (FT), hawksbill sea turtle (FE), and leatherback sea turtle (FE). Greens, hawksbills, and loggerheads are nesting in the region (details in table 4).

**TABLE 4: DISTRIBUTION OF REPTILES SENSITIVE TO OILING**

| SPECIES | AREAS OF HIGH CONCENTRATION | NESTING LOCATIONS AND SEASONALITY |
|---|---|---|
| American Crocodile (FT)<br><br>*Habitat*<br>Marshes/mangroves from Everglades City to Turkey Point | Shark River, Whitewater Bay, Oyster Bay, Lake Ingraham, other Everglades lakes and mangroves, Crocodile Lake NWR, Barnes sound, Blackwater sound, Long Sound in Florida Bay<br><br>Alligator Bay, Davis Cove, Little Madeira Bay, Lake Ingraham, and surrounding lakes, bights, mangroves, and keys in Everglades NP<br><br>High concentrations in Card Sound and very high concentrations in cooling canals along the mainland | Nest: April-May<br>Juveniles present: Jul-Aug<br><br>Nesting: Alligator Bay, Davis Cove, Flamingo Canal, Crocodile Lake NWR – Barnes Sound, Little Madeira Bay, Lake Ingraham, and surrounding lakes, bights, mangroves, and keys in Everglades NP |
| American alligator (FT due to similarity of appearance) | Mangroves, marshes, and swamps, estuarine areas, and freshwater areas of the coastal mainland peninsula | Nest: May - Sept |
| Green sea turtle (FE)<br>Hawksbill sea turtle (FE)<br>Loggerhead sea turtle (FT)<br><br>*Habitat*<br>Common in all coastal waters<br>Juveniles common in *Sargassum* mats present in the gulf stream | Very high concentrations of greens in the Marquesas<br><br>High concentrations of greens, hawksbills and loggerheads in portions of Florida Bay, Dry Tortugas and Marquesas Keys, Biscayne Bay<br><br>Greens and loggerheads: Key West to Key Largo | Nesting season (Apr/May-Oct): Greens and loggerheads nest on sand beaches throughout the area in low-med concentrations<br><br>High concentrations of loggerheads nest on sand beaches near Lake Ingraham<br><br>Hawksbills nest in the western Keys of KWNWR (Boca Grande) in low concentrations |
| Leatherback sea turtle (FE) | Coastal Atlantic (Jun-Aug) | None in the region |
| Kemp's Ridley sea turtle (FE)<br><br>*Habitat*<br>Coastal waters | High concentrations in Gulf coastal waters year round (Everglades City to Lake Ingraham) | None in the region |

| | | |
|---|---|---|
| Juveniles associated with *Sargassum* | High concentrations in portions of Florida Bay and Dry Tortugas | |
| Mangrove diamondback terrapin<br><br>*Habitat:*<br>Mangroves of the Lower Keys | Western Keys of Key West NWR, Marquesas Key | Spring |

Direct contact with oil may irritate the eyes, mouth, and nostrils of turtles, alligators, and crocodiles. Juvenile turtles are associated with *Sargassum* habitats, both of which end up accumulating in the same areas as surface oil, due to prevailing currents. Turtles may also ingest tarballs while foraging and may bioaccumulate PAHs through ingestion of oiled prey. Oiled turtles dive less frequently, which could mean less foraging effort. Large juvenile and adult green sea turtles feed on seagrasses and algae and may ingest oil while feeding directly on these items. The toxicity of the oil as well as intestinal blockage can result in death. There is also the risk of nests becoming oiled and causing mortality of eggs and hatchlings.

## 2305 Mammals

Only threatened or endangered mammals that may contact oil are presented here.

**TABLE 5: DISTRIBUTION OF THREATENED/ENDANGERED MAMMALS SENSITIVE TO OIL SPILLS**

| SPECIES | HABITAT |
|---|---|
| Lower keys marsh rabbit (FE) | Boca Chica Key, Saddlebunch Key, Sugarloaf Key, Annette Key, Cudloe Key, Big Pine Key, Newfound Harbor Keys, Mayo Key, and Porpoise Key |
| Florida key deer (FE) | National Key Deer Refuge, Saddlebunch Key |
| Silver rice rat (FE) | Saddlebunch Key, Johnston Key, Water Keys, Cudjoe Key, Summerland Key, Big Torch Key, and Little Pine Key |
| Key Largo woodrat (FE) | Lignumvitae Key and Key Largo |
| Key Largo cotton mouse (FE) | Lower Matecumbe Key and Key Largo |

The fur of terrestrial mammals may become oiled, and oil may be ingested as animals attempt to clean themselves.

Numerous species of whales, dolphins, and the West Indian manatee either reside in or travel through the sanctuary at some point in their lifetimes. The West Indian manatee (FE) inhabits the coastal waters, estuaries, tidal creeks, and freshwater river systems of Florida. Manatees will be most susceptible to contaminant exposure if the oil enters estuaries, river mouths, nearshore waters, and intracoastal waters inshore of barrier and mangrove islands, particularly where there are seagrass beds upon which manatees forage. Manatees can be found feeding on seagrass or other aquatic vegetation year-round. During winter months (November/December to February/March), manatees thermoregulate during cold weather by seeking shelter at a limited

number of warm-water sites (mostly passive natural and manmade thermal basins in this region). They are common along inshore and nearshore waters of this region of Florida, but some important areas include: Ten Thousand Islands from Everglades City south into Everglades National Park; Whitewater Bay, Coot Bay, and associated rivers; Florida Bay off of Flamingo; Little Madeira Bay, Joe Bay, Blackwater Sound, Manatee Bay, Barnes Sound, Card Sound; upper and middle Florida Keys, especially Key Largo including Tarpon Basin; and southern Biscayne Bay, including Turkey Point power plant canals.

A variety of dolphins and whales are expected to be present in waters throughout the region. The most common is the bottlenose dolphin which is likely present in nearshore, inshore, and offshore waters of the Gulf of Mexico, Florida Straits, Florida Bay, Biscayne Bay, and the Atlantic Ocean. Atlantic spotted dolphin can be found along the shelf break. Sperm whales (FE) are present in the deep waters of the Straits of Florida. Other mammals present in offshore waters (beyond the shelf break) include Bryde's whale, Pygmy sperm whale, Dwarf sperm whale, Gervais' beaked whale, Blainville's beaked whale, Shortfinned pilot whales, False killer whales (summer), Risso's dolphin, Pygmy killer whale, Melonheaded whale, Rough-toothed dolphin, striped dolphin (winter), Pantropical spotted dolphin, Spinner dolphin, and Clymene dolphin. Dolphins and whales come into contact with oil while at the surface breathing. Oil can irritate sensitive tissues, both externally and internally. Ingestion of oil is not likely for many of these species because they feed in the water column and not at the surface. In baleen whales (Bryde's is the only one in this region) oil can adhere to the baleen and interrupt feeding.

## 2306 Habitats

Seagrasses are present around many of the keys in the Gulf of Mexico (GOM), along the Everglades, in Dry Tortugas National Park, and throughout the entire study area of South Florida and the Florida Keys, including Florida Bay, Hawk Channel, and Biscayne Bay. Seagrasses in South Florida consist of monospecific or mixed beds of shoal grass, manatee grass, or turtle grass (generally the most abundant species).

Intertidal seagrass beds are at greatest risk of impacts from floating oil; the oil can adhere to and coat the subaerial leaves. The abundant animals associated with seagrass habitats are often at greater risk than the vegetation, because the roots are protected from sediment contamination. In all seagrass areas, but particularly in Florida Bay where extensive seagrass meadows occur in a complex, very shallow system of banks and basins, physical damage to seagrass vegetation and sediments should be strictly avoided. Response operations in Florida Bay would require very experienced personnel to avoid boat groundings, prop scarring, etc., which could impact the grass beds. Extensive foot traffic in shallow seagrass areas should also be avoided.

Coral reefs and hardbottom reefs occur along the Florida Keys/South Florida in the Dry Tortugas, Hawk Channel, the Straits of Florida, the Atlantic, and in Biscayne Bay. These reefs include the major coral reef tract and adjacent patch reef areas where intact, living, reef-building, stony coral species (e.g., *Acropora*) occur as well as hardbottom reefs. Over 45 species of stony corals, 35 soft corals and hundreds of other invertebrates such as sponges, anemones (Actiniaria), crustaceans (Arthropoda), molluscs (Mollusca) and echinoderms (Echinodermata) have been described from the Florida Keys with as many as 34 species of stony coral reported on individual coral reefs in the Florida Keys (Florida Natural Areas Inventory [FNAI) 2010). Hardbottom reefs include all

other reef types or live-bottom areas, such as limestone outcrops, gorgonian soft-coral flats, coralline algae reefs, etc. There is deep sea coral and sponge habitat offshore of the Keys in the Atlantic Ocean. Many species associated with reef areas may be at high risk during oil spills depending on their particular oil vulnerability and sensitivity. In addition, physical damage caused by vessels or response activities can be severely damaging to coral and hardbottom reef communities. Spill occurring during the spawning period for corals could affect spawning success.

*Sargassum* mats occur in the Gulf Stream and are important habitats for many larval and juvenile fish. *Sargassum* can become concentrated in the same currents that accumulate surface oil and become oiled. If enough of the plant structure is coated with oil, respiration can be interrupted and the mats may die. Accumulation of oil in the same locations as floating *sargassum* mats can also have lethal and sublethal effects to larval and juvenile fishes and turtles associated with those habitats.

**Essential Fish Habitat** (EFH) under the Magnuson-Stevens Act is defined as: those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. EFH has been designated for numerous species or species complexes (i.e., snapper-grouper complex). For each species or complex, the fishery management councils have identified life stages of these species that have been identified in this area. Some species such as blue marlin and shortfin mako shark have EFH designated for all life stages. For designated EFH species or complexes within FKNMS, see Appendix A.

**Habitat Areas of Particular Concern** (HAPC) are subsets of EFH that exhibit one or more of the following traits: rare,stressed by development, provide important ecological functions for federally managed species, or are especially vulnerable to anthropogenic (or human impact) degradation. Designated HAPCs in the region include: Biscayne Bay, Biscayne National Park, Bluefin Tuna Card Sound, Coastal Inlets, Continuous and Discontinuous Seagrass, Dry Tortugas National Park, Florida Bay, Florida Keys National Marine Sanctuary, Hardbottom, Islamorada Hump, Mangroves, Marathon Hump, Patch Reef, Phragmatopoma (worm reefs), Platform Margin Reef, Pulley Ridge, SEAMAP Hard Bottom, SEAMAP Nearshore and Offshore Hard Bottom, The Wall off the Florida Keys, Tortugas North, and Tortugas South.

When a species is listed under the ESA, NMFS and/or USFWS is required to determine whether there are areas that meet the definition of "critical habitat." **Critical habitat** for a threatened or endangered species is defined as (1) the specific areas within the geographical area occupied by the species at the time of listing that contain physical or biological features essential to conservation of the species and that may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation. Critical habitat within the region has been designated for the following species: loggerhead sea turtle, smalltooth sawfish, elkhorn and staghorn coral, American crocodile, Bartram's hairstreak butterfly, Cape Sable thoroughwort, Florida leafwing butterfly, Florida semaphore cactus, piping plover, silver rice rat, and West Indian manatee.

## 2400 Shoreline Sensitivities and Cleanup Concerns

Identification and protection of Mangrove resources is a critical element of the Florida Keys Geographic Response Planning process. Mangroves provide important species habitat, nursery grounds, and shoreline stabilization. They are among the most sensitive shoreline habitats to spilled oil. Access, cleanup, and recovery of oil impacted mangroves is normally limited at best.

Due to the extensive coverage of mangroves throughout the Florida Keys region, prioritization for protecting these resources should be based upon the following criteria:

- Extensive mangrove forests before less extensive narrow mangrove strands and/or fringe mangrove backed by development
- Areas where access is possible so that protection strategies can be effectively implemented.
- Managed areas such as National Parks, State Parks, Refuges, and Sanctuary lands.
- Areas known to provide habitat to protected species.

Care should always be taken to avoid trampling, cutting, or burning mangroves. In most cases, oiled mangroves will be most effectively addressed by natural recovery methods once gross oil removal is accomplished (if possible).

# 3000 Cleanup Method Decision-Making Guidance

The matrices contained in this section show which shoreline cleanup methods have been considered for the 12 shoreline types described in Section 2100 of this annex. Four matrices have been constructed for the major categories of oil (very light, light, medium, heavy, and tar balls) and are shown in Tables 5-8 in Section 3400 of this annex. The shoreline cleanup methods are described in Section 3200 of this annex. Each matrix in Section 3400 can be used as a cleanup advisory tool.

The matrices are only a general guide for cleanup method selection and should be used in conjunction with field observation and scientific advice, and practical experience. The countermeasures listed are not necessarily the best under all circumstances, and any listed technique may need to be used in conjunction with other techniques. The FOSC has the responsibility and authority to determine which cleanup methods are appropriate for the various situations encountered.

Selection of a specific cleanup method to be used is based upon the degree of oil contamination, shoreline types, and the presence of sensitive resources. Extremely sensitive areas are limited to manual cleanup methods. It is important to note that the primary goal of the implementation of the cleanup method is the removal of oil from the shoreline with no further injury or destruction to the environment.

# 3100 Cleanup Factors

Selection of the proper cleanup method for a particular shoreline type is controlled by the major variables listed below.

## 3101 Type of substrate

The type of substrate making up the oiled shoreline controls penetration and persistence. Oil cannot penetrate rock surfaces except where cracks and crevices exist. Typically, fine-grained, poorly sorted sediments resist oil penetration and coarse-grained, well-sorted sediments experience deeper oil penetration.

## 3102 Amount of oil contamination

The amount of oil contamination affects the level of manpower needed for cleanup and the selection of the cleanup methods. Small spills tend to rely on manual methods and large spills tend to rely on mechanical methods or, occasionally, chemical agents.

## 3103 Type of oil

The type of oil controls persistence, penetration and cleanup difficulty. Table 4 lists the physical, chemical and toxicological properties of different types of oil. Table 5 lists the pertinent cleanup attributes of the four major oil types.

## 3104 Depth of oil contamination in the sediments

The depth of oil contamination controls the selection of cleanup methods. Surface contamination is easier to remove and will typically require only manual or washing methods. Deeper substrate penetration usually requires mechanical or biochemical methods.

## 3105 Type of oil contamination

The type of oil contamination affects the level of effort and method. The range of primary oil morphology or contamination includes film, coating, tar balls, mousse and asphalt.

## 3106 Shoreline exposure

The degree of exposure of the contaminated shoreline to waves and currents controls the oil persistence and the decision to cleanup. High energy shorelines tend to clean naturally and low energy shorelines tend to require cleanup activities.

## 3107 Trafficability of equipment on shoreline

Shoreline trafficability controls the selection between manual, mechanical, and biochemical methods. Areas of low-bearing capacity and poor access typically rely on manual and biochemical methods. Areas of high-bearing capacity and good access also allow for mechanical methods. However, areas with good-bearing and poor access can also be candidates for mechanical cleanup.

## 3108 Environmental sensitivity of contaminated shoreline

The sensitivity of the contaminated shoreline is the most important factor in the development of cleanup recommendations. Shorelines of low productivity and biomass can withstand the more intrusive cleanup methods such as pressure washing. Shorelines of high productivity and biomass

are very sensitive to intrusive cleanup methods; in many cases the cleanup is more damaging than the natural recovery.

## 3200 Cleanup Methods

Table 3 below provides cleanup recommendations within the framework of the distribution of habitat types found in the Florida Keys. For each cleanup method, the technique is described, shoreline applications are discussed, and the environmental concerns identified.

Table 6: Shoreline Cleanup Descriptions

| Shoreline Cleanup Descriptions | | | |
|---|---|---|---|
| **Technique** | **Technique Description** | **Primary Use** | **Potential Environmental Effects** |
| **I. Natural Recovery** | | | |
| No Action | Allow natural processes to degrade and disperse stranded oil. | Used on heavily exposed and/or light to moderately oiled beaches to avoid additional impacts created by cleanup. | Potential toxic and physical effects of remaining oil. Persistent oil can inhibit recolonization. |
| **II. Manual Recovery** | | | |
| Removal | Oil and oiled sediments or debris are removed by hand using shovels, rakes, trowels, sorbents, putty knives, etc. | Used on shorelines with light or sporadic oil conditions or where access is limited. | Foot traffic may crush organisms and some organisms may be removed from the substrate/sediments. |
| Passive Collection | Lengths of snare or sorbent boom are anchored along the shoreline just downslope of the oiled area to collect the oil as it is flushed by tidal wave action. | Used to remove a small amount of mobile oil that are continually released from oiled shorelines. | No significant effects. |
| Vegetation Cutting | Oiled vegetation is cut by hand, collected, and placed into plastic bags or containers for disposal | Used on heavily vegetated shorelines or marsh/estuarine environments to remove heavily oiled vegetation. | Heavy foot traffic can crush organisms and cause root damage in marshes. |
| **III. Mechanical Recovery** | | | |
| Heavy Equipment | Heavy equipment (backhoe, loader, motor grader, elevating scraper, dump truck, etc.) is used for excavating and offsite transfer of oiled sediments. | Used on finer sediment beaches to remove heavily oiled surface and near-surface sediments. | Removes shallow burrowing organisms and reduces beach stability, creating erosion potential. |
| **IV. Washing** | | | |
| Flooding | A perforated header pipe or hose is placed at the top of the beach through which large quantities of sea water are pumped, flushing the oil | Used on medium to coarse sediment beaches to remove oil from the interstices and pore spaces. | Potential for impacting previously clean lower intertidal or adjacent areas. Unrecovered oil can remain toxic to organisms. |

| Shoreline Cleanup Descriptions | | | |
|---|---|---|---|
| **Technique** | **Technique Description** | **Primary Use** | **Potential Environmental Effects** |
| | out into the water for containment and recovery. | | |
| Lower Pressure | Ambient or heated seawater is pumped through hoses at low to medium pressure to agitate sediments and flush oil back into water for containment and recovery. Typically used in conjunction with Flooding. | Used on medium to coarse sediment beaches to remove oil from the interstices and pore spaces. | Can remove some organisms from the substrate or cause adverse thermal effects. |
| High Pressure | High pressure ambient or heated water streams remove oil from substrate or hard surfaces where it is channeled to recovery areas. | Used to remove oil coatings from boulders, rock, man-made structures, and other solid surfaces. | Removes most organisms from the substrate. Potential for impacting previously clean lower intertidal or adjacent areas. |
| Steam | Steam is applied to oiled surfaces to loosen and remove oil where it is channeled to a recovery area. | Used to remove sticky, viscous, and weathered oil coatings from solid surfaces (boulders, rock, man-made structures). | Removes some organisms and thermal effects can cause substantial mortality. |
| Sand Blasting | Sand in a high-velocity air stream is applied to oiled surfaces to remove the oil. The oiled sand is typically recovered manually. | Used to remove thin residues of weathered oil from man-made structures, rocks, or other soiled surfaces. | Removes all organisms from surface. Unrecovered oil can be toxic to downslope organisms. |
| **V. Vacuum** | | | |
| Suction | Vacuum truck or suction pump is positioned near pooled oil and oil is recovered via suction hose. Portable skimmers are positioned within containment booms or in areas of oil concentrations to recover the oil | Used to pick up oil on shorelines where pools have formed in natural or manmade depressions, or from water surfaces in backwater or contained areas | Vacuuming can remove some organisms. No significant effects from skimmer use |
| **VI. Sediment Reworking** | | | |
| Washing | Oiled sediments are evacuated and put through a bath or continuous feed washing unit with the cleaned sediments returned to the beach. | Used on moderate to heavily oiled, medium sediment, sheltered beaches to remove oil without a net sediment loss. | Loss of organisms in removed sediments, some loss of finer- grained materials and temporary destabilization of beach. |

| Shoreline Cleanup Descriptions | | | |
|---|---|---|---|
| **Technique** | **Technique Description** | **Primary Use** | **Potential Environmental Effects** |
| Relocation | Heavy equipment is used to transfer oiled sediments from the supra-tidal and top of the upper-intertidal zones to the middle of the upper-tidal zone. | Used on exposed, light to moderately oiled cobble/pebble beaches to enhance natural cleaning processes and prevent potential erosion problems associated with sediment removal. | Potential for remobilizing oil and impacting adjacent areas. Adversely affects organisms inhabiting the relocated sediments and in the relocation area. |
| Tilling | Tractor fitted with tines or ripper blades is used to till the near surface sediments in the oiled area. | Used on low amenity, medium to fine sediment beaches with light to moderate oil conditions to break up surface and/or expose subsurface oil to natural degradation processes. | Disturbs shallow burrowing organisms. Can mix oil deeper into sediments. |
| **VII. Combustion** | | | |
| In-Situ Burn | Oiled debris is collected and piled in a central location and burned. Ignition device or fluids and portable fans can be used to facilitate burning. | Used on beaches with significant quantities of heavily oiled logs, driftwood, and debris. | Temporary degradation in local air quality. Organisms in the vicinity of burn pile may suffer adverse thermal effects. |
| **VIII. Biochemical Recovery** | | | |
| Chemical Treatment | Chemical "beach cleaning" agents are applied to the oiled sediments, a "pre-soak" followed by water flushing. Agents may also be mixed in with the flush water. | Used on viscous, sticky, and weathered oils to reduce adhesion to coarse sediments and aid in removal by flushing. | Some agents may be mildly toxic to biota. Potential for impacting previously clean lower-intertidal and adjacent areas. |
| In-Situ Bioremediation | Liquid or granular fertilizer is applied to oiled area to stimulate growth of naturally occurring oil-metabolizing microbes. | Used on light to moderately oiled, medium to coarse sediment shorelines to enhance microbial degradation of the oil. | Some fertilizers can be toxic to organisms when first applied. Algal blooms are possible in protected areas. |

## 3300 Physical Properties of Different Types of Spilled Oil

Table 7 below describes the physical and toxicological characteristics of different types of spilled oil.

**Table 7: Physical Properties of Various Oil Types**

| Oil Type | Physical/Chemical Properties | Toxicological Properties |
|---|---|---|
| Light Oils<br>- Jet fuels<br>- Gasoline<br>- Diesel<br>- No. 2 fuel oils<br>- Light crudes | - Spread rapidly<br>- High evaporation and solubility rates<br>- Tend to form unstable emulsions<br>- Very toxic to biota when fresh<br>- May penetrate substrate<br>- Can be removed by low pressure flushing | - Acute toxicity is related to the content and concentration of the aromatic fractions.<br>- Aromatic fractions are very toxic due to the pressure primarily of naphthalene compounds and, to a lesser extent, benzene compounds.<br>- Heavy molecular weight compounds are immediately less toxic, but may be chronically toxic since many are either known or potential carcinogens.<br>- Acute toxicity of individual aromatic fractions will vary among species due to differences in the rate of uptake and rate of release of these compounds.<br>- Mangroves and marsh plants may be chronically affected due to penetration and persistence of aromatic compounds in sediments. |
| Medium Oils<br>- Most crudes | - Moderate to high viscosity<br>- Toxicity variable depending on light fraction<br>- In tropical climates, rapid evaporation and solution form less toxic weathered residue with toxicity due to more smothering<br>- Tend to form stable emulsions under high physical energy conditions<br>- Variable penetration, a function of substrate grain size<br>- High potential for sinking after weathering and uptake of sediment<br>- Generally removable from water surface when fresh<br>- Weather to tar balls and tarry residue | - Acute and chronic toxicity in marine organisms is likely to result from:<br>1. Mechanical or physical coverage – oil completely smothering organism causing death.<br>2. Chemical toxicity – results from the exposure of very toxic aromatic fractions of the oil to marine organisms.<br>3. A combination of mechanical or physical coverage and chemical toxicity.<br>- Mechanical or physical smothering causing acute toxicity in many marine organisms and chronic toxicity in many marine plants (especially mangroves). |
| Heavy Oils<br>- Heavy crude oil<br>- No. 6 fuel<br>- Bunker crude<br>- Asphalt<br>- Waste fuel | - Form tarry lumps at ambient temperatures<br>- Non-spreading<br>- Relatively non-toxic due to substrate<br>- May soften and flow when exposed to the sun<br>- Cannot be recovered from water surface with most cleanup equipment<br>- Easily removed manually from beaches | - Acute and chronic toxicity occurs more from smothering effects than from chemical toxicity, due to the small proportion of toxic aromatic reactions found in heavy, residual oils<br>- Toxicity is more common in marine plants (especially mangroves) and sedentary organisms than in mobile organisms<br>- Acute and chronic toxicity also results from the thermal stress, due to the elevation of temperature in oiled habitats. |

# 3400 Shoreline Cleanup Matrices for Various Oils/Shorelines

## 3401 Shoreline Cleanup – Very Light Oil

### Table 8: Shoreline Cleanup Matrix – Very Light Oil

- Highly volatile (should all evaporate within 1 - 2 days)
- High concentrations of toxic (soluble) compounds
- Result: Localized, severe impacts to water column and intertidal resources
- Duration of impacts is a function of the resource recovery rate
- No dispersion necessary

| SHORELINE TYPE CODES | | | |
|---|---|---|---|
| 1 | Exposed rocky shores and vertical, hard man-made | 6A | Gravel beaches |
| 2 | Exposed wave-cut rock platforms and reef flats | 6B | Exposed riprap |
| 3 | Fine-grained sand beaches | 7 | Exposed tidal flats |
| 4 | Medium- to coarse-grained sand beaches | 8 | Sheltered rocky shores and coastal structures |
| 5A | Mixed sand and gravel beaches | 9 | Sheltered tidal flats |
| 5B | Artificial fill having a range of grain size & materials | 10 | Mangroves |

| COUNTERMEASURE | SHORELINE TYPES | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5A | 5B | 6A | 6B | 7 | 8 | 9 | 10 |
| 1) No Action | R | R | R | R | R | R | R | R | R | R | R | R |
| 2) Manual Removal | | | | | | | | | | | | |
| 3) Passive Collection (Sorbents) | R | R | R | R | R | R | R | R | R | R | R | R |
| 4) Debris Removal | R | R | R | R | R | R | R | C | R | | | C |
| 5) Trenching | | | | | | | | | | | | |
| 6) Sediment Removal | | | | | | | | | | | | |
| 7) Ambient Water Flooding (Deluge) | | | | | | | | | R | R | | C/R |
| 8) Ambient Water Washing | | | | | | | | | | | | C/R |
| a) Low Pressure (<50 psi) | | | | | | | | | | | | C/R |
| b) High Pressure (<100 psi) | | | | | | | | | | | | |
| 9) Warm Water Washing/Mod-High Pressure | | | | | | | | | | | | |
| 10) Hot Water/High Pressure Washing | | | | | | | | | | | | |
| 11) Slurry Sand Blasting | | | | | | | | | | | | |
| 12) Vacuum | | | | | | | | | | | | |
| 13) Sediment Reworking | | | | | | | | | | | | |
| 14) Excavation, Cleansing, and Replacement | | | | | | | | | | | | |
| 15) Cutting Vegetation | | | | | | | | | | | | |
| 16) Chemical Treatment * | | | | | | | | | | | | |
| a) Oil Stabilization with Elastomizers | | | | | | | | | | | | |
| b) Protection of Beaches | | | | | | | | | | | | |
| c) Cleaning of Beaches | | | | | | | | | | | | |
| 17) *In situ* Burning of Shorelines * | | | | | | | | | | | | |
| 18) Nutrient Enhancement * | | | | | | | | | | | | |
| 19) Microbial Addition * | | | | | | | | | | | | |

* – Requires RRT approval
C – Conditional
R – Recommended – may be preferred alternative
NR – Not Recommended

This countermeasure advisability matrix is only a general guide for removal of oil from shoreline substrates. It must be used in conjunction with the entire Shoreline Countermeasure Manual plus field observations and scientific advice. The countermeasures listed are not necessarily the best under all circumstances, and any listed technique may need to be used in conjunction with other techniques (including ones not listed herein). The Federal On-Scene Coordinator (FOSC) or state OSC operating with the FOSC's authorization has the responsibility for and authority to determine which countermeasure(s) are appropriate for the various situations encountered. Selection of countermeasures is based on the degree of oil contamination, the shoreline type, and the presence of sensitive resources. Extremely sensitive areas are limited to manual cleanup countermeasures.

# 3402 Shoreline Cleanup – Light Oil

### Table 9: Shoreline Cleanup Matrix – Light Oil

- Moderately volatile; will leave residue (up to 1/3 of spilled amount)
- Moderate concentrations of toxic (soluble) compounds
- Will "oil" intertidal resources with long-term contamination potential
- Has potential for subtidal impacts (dissolution, mixing, sorption onto suspended sediments)
- No dispersion necessary
- Cleanup can be very effective

| SHORELINE TYPE CODES | | | |
|---|---|---|---|
| 1 | Exposed rocky shores and vertical, hard man-made | 6A | Gravel beaches |
| 2 | Exposed wave-cut rock platforms and reef flats | 6B | Exposed riprap |
| 3 | Fine-grained sand beaches | 7 | Exposed tidal flats |
| 4 | Medium- to coarse-grained sand beaches | 8 | Sheltered rocky shores and coastal structures |
| 5A | Mixed sand and gravel beaches | 9 | Sheltered tidal flats |
| 5B | Artificial fill having a range of grain size & materials | 10 | Mangroves |

| COUNTERMEASURE | SHORELINE TYPES | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5A | 5B | 6A | 6B | 7 | 8 | 9 | 10 |
| 1) No Action | C | R | C | C | C | C | C | C | R | R | R | R |
| 2) Manual Removal | C | | R | R | C | C | C | | | | | C |
| 3) Passive Collection (Sorbents) | R | R | R | R | R | R | R | R | R | R | R | R |
| 4) Debris Removal | R | R | R | R | R | R | R | C | R | | | R |
| 5) Trenching | | | C | C | C | C | C | | | | | |
| 6) Sediment Removal | | | C | C | | R | | | | | | |
| 7) Ambient Water Flooding (Deluge) | R | R | | C | R | R | C | C | R | C | | C |
| 8) Ambient Water Washing | R | C | | C | R | R | C | C | | | | C/R |
| a) Low Pressure (<50 psi) | R | C | | C | R | R | C | C | | | | C/R |
| b) High Pressure (<100 psi) | R | C | | | C | C | C | C | | | | |
| 9) Warm Water Washing/Mod-High Pressure | R | C | | | C | C | C | C | | | | |
| 10) Hot Water/High Pressure Washing | C | | | | C | C | C | C | | | | |
| 11) Slurry Sand Blasting | | | | | | | | | | | | |
| 12) Vacuum | | | C | | | | | | | | | C |
| 13) Sediment Reworking | | | C | C | C | R | C | | | | | |
| 14) Excavation, Cleansing, and Replacement | | | C | R | C | R | C | C | | | | |
| 15) Cutting Vegetation | | | | | | | | | | | | |
| 16) Chemical Treatment * | | | | | | | | C | | | | C |
| a) Oil Stabilization with Elastomizers | | | | | | | | | | | | C |
| b) Protection of Beaches | | | | | | | | C | | | | C |
| c) Cleaning of Beaches | C | C | | | C | C | C | C | | | | C |
| 17) *In situ* Burning of Shorelines * | | | | | | | | | | | | |
| 18) Nutrient Enhancement * | | | | | C | C | C | | | | | C |
| 19) Microbial Addition * | | | | | C | C | C | | | | | C |

* – Requires RRT approval
C – Conditional
R – Recommended – may be preferred alternative
NR – Not Recommended

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# 3403 Shoreline Cleanup – Medium Oil

## Table 10: Shoreline Cleanup Matrix – Medium Oil

- About 1/3 will evaporate within 24 hours
- Maximum water-soluble fraction is 10-100 ppm
- Oil contamination of intertidal areas can be sever/long term
- Impact to waterfowl and fur-bearing mammals can be severe
- Chemical dispersion is an option within 1 – 2 days
- Cleanup most effective if conducted quickly

| SHORELINE TYPE CODES | | | |
|---|---|---|---|
| 1 | Exposed rocky shores and vertical, hard man-made | 6A | Gravel beaches |
| 2 | Exposed wave-cut rock platforms and reef flats | 6B | Exposed riprap |
| 3 | Fine-grained sand beaches | 7 | Exposed tidal flats |
| 4 | Medium- to coarse-grained sand beaches | 8 | Sheltered rocky shores and coastal structures |
| 5A | Mixed sand and gravel beaches | 9 | Sheltered tidal flats |
| 5B | Artificial fill having a range of grain size & materials | 10 | Mangroves |

| COUNTERMEASURE | SHORELINE TYPES | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5A | 5B | 6A | 6B | 7 | 8 | 9 | 10 |
| 1) No Action | C | R | C | C | C | C | C | C | R | R | R | C |
| 2) Manual Removal | C | R | R | R | C | C | C | C | R | | | C |
| 3) Passive Collection (Sorbents) | R | R | R | R | R | R | R | R | R | R | R | R |
| 4) Debris Removal | R | R | R | R | R | R | R | R | R | | | R |
| 5) Trenching | | | C | C | C | C | C | | | | | |
| 6) Sediment Removal | | | C | C | | R | | | | | | |
| 7) Ambient Water Flooding (Deluge) | R | R | | C | R | R | C | R | R | R | C | C |
| 8) Ambient Water Washing | R | C | | C | R | R | C | R | C | C | | C/R |
| a) Low Pressure (<50 psi) | R | C | | C | R | R | C | R | C | C | | C/R |
| b) High Pressure (<100 psi) | R | C | | C | C | C | C | R | C | C | | |
| 9) Warm Water Washing/Mod-High Pressure | R | C | | | C | C | C | R | C | C | | |
| 10) Hot Water/High Pressure Washing | C | | | | C | C | C | R | C | C | | |
| 11) Slurry Sand Blasting | | | | | | | | | | | | |
| 12) Vacuum | | | C | | | | | | | | | C |
| 13) Sediment Reworking | | | C | C | C | R | C | | | | | |
| 14) Excavation, Cleansing, and Replacement | | | C | R | C | R | C | C | | | | |
| 15) Cutting Vegetation | | | | | | | | | | | | |
| 16) Chemical Treatment * | | | | | | | C | | | | | C |
| a) Oil Stabilization with Elastomizers | | | | | | | | | | | | C |
| b) Protection of Beaches | | | | | | | | | | C | C | C |
| c) Cleaning of Beaches | C | C | | | C | C | C | C/R | C | C | | C |
| 17) *In situ* Burning of Shorelines * | | | | | | | | | | | | |
| 18) Nutrient Enhancement * | | | | | C | C | C | | C | C | | C |
| 19) Microbial Addition * | | | | | C | C | C | | C | C | | C |

* – Requires RRT approval
C – Conditional
R – Recommended – may be preferred alternative
NR – Not Recommended

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# 3404 Shoreline Cleanup – Heavy Oil

## Table 11: Shoreline Cleanup Matrix – Heavy Oil

- Heavy oils with little or no evaporation or dissolution
- Water-soluble fraction likely to be < 10 ppm
- Heavy contamination of intertidal areas likely
- Severe impacts to waterfowl and fur-bearing mammals (coating & ingestion)
- Long-term contamination of sediments possible & weathers very slowly
- Dispersion seldom very effective
- Shoreline cleanup difficult under all conditions

| SHORELINE TYPE CODES | | | |
|---|---|---|---|
| 1 | Exposed rocky shores and vertical, hard man-made | 6A | Gravel beaches |
| 2 | Exposed wave-cut rock platforms and reef flats | 6B | Exposed riprap |
| 3 | Fine-grained sand beaches | 7 | Exposed tidal flats |
| 4 | Medium- to coarse-grained sand beaches | 8 | Sheltered rocky shores and coastal structures |
| 5A | Mixed sand and gravel beaches | 9 | Sheltered tidal flats |
| 5B | Artificial fill having a range of grain size & materials | 10 | Mangroves |

| COUNTERMEASURE | SHORELINE TYPES | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5A | 5B | 6A | 6B | 7 | 8 | 9 | 10 |
| 1) No Action | C | R | C | C | C | C | C | C | R | R | R | C |
| 2) Manual Removal | C | R | R | R | C | C | C | R | | | | C |
| 3) Passive Collection (Sorbents) | R | R | R | R | R | R | R | R | R | R | R | R |
| 4) Debris Removal | R | R | R | R | R | R | R | R | | | | R |
| 5) Trenching | | | C | C | C | C | C | C | | | | |
| 6) Sediment Removal | | | C | C | | R | | | | | | |
| 7) Ambient Water Flooding (Deluge) | R | R | | C | R | R | C | R | R | R | | C |
| 8) Ambient Water Washing | R | C | | C | R | R | C | R | C | C | | C |
| a) Low Pressure (<50 psi) | R | C | | C | R | R | C | R | C | C | | |
| b) High Pressure (<100 psi) | R | C | | | C | C | C | R | C | C | | |
| 9) Warm Water Washing/Mod-High Pressure | R | C | | | C | C | C | R | C | C | | |
| 10) Hot Water/High Pressure Washing | C | | | | C | C | C | R | C | C | | |
| 11) Slurry Sand Blasting | | | | | | | | | | | | |
| 12) Vacuum | | | C | | | | | | | | | C |
| 13) Sediment Reworking | | | C | C | C | R | C | | | | | |
| 14) Excavation, Cleansing, and Replacement | | | C | R | C | R | C | C | | | | |
| 15) Cutting Vegetation | | | | | | | | | | | | |
| 16) Chemical Treatment * | | | | | | | | C | | | | C |
| a) Oil Stabilization with Elastomizers | | | | | | | | | | | | C |
| b) Protection of Beaches | | | | | | | | | C | C | | C |
| c) Cleaning of Beaches | | | | | C | C | C | C | C | C | | C |
| 17) *In situ* Burning of Shorelines * | C | C | | | | | | | | | | |
| 18) Nutrient Enhancement * | | | | | C | C | C | | C | C | | C |
| 19) Microbial Addition * | | | | | C | C | C | | C | C | | C |

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R – Recommended – may be preferred alternative
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# 3405 Shoreline Cleanup – Tar Balls

## Table 12: Shoreline Cleanup Matrix – Tar Balls

| | | | |
|---|---|---|---|
| 1 | Exposed rocky shores and vertical, hard man-made | 6A | Gravel beaches |
| 2 | Exposed wave-cut rock platforms and reef flats | 6B | Exposed riprap |
| 3 | Fine-grained sand beaches | 7 | Exposed tidal flats |
| 4 | Medium- to coarse-grained sand beaches | 8 | Sheltered rocky shores and coastal structures |
| 5A | Mixed sand and gravel beaches | 9 | Sheltered tidal flats |
| 5B | Artificial fill having a range of grain size & materials | 10 | Mangroves |

| COUNTERMEASURE | SHORELINE TYPES | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5A | 5B | 6A | 6B | 7 | 8 | 9 | 10 |
| 1) No Action | C | C | C | C | C | C | C | C | C | C | C | C |
| 2) Manual Removal | R | R | R | R | R | R | R | R | R | R | R | C |
| 3) Passive Collection (Sorbents) | C | C | C | C | C | C | C | C | C | C | C | C |
| 4) Debris Removal | C | R | R | R | R | R | R | R | C | R | C | C |
| 5) Trenching | | | | | | | | | | | | |
| 6) Sediment Removal | | | C | C | C | C | C | | | | | |
| 7) Ambient Water Flooding (Deluge) | C | C | C | C | C | | | | | | | C |
| 8) Ambient Water Washing | C | | | | | | | | | C | | |
| a) Low Pressure (<50 psi) | C | | | | | | | | | C | | |
| b) High Pressure (<100 psi) | C | | | | | | | | | C | | |
| 9) Warm Water Washing/Mod-High Pressure | C | | | | | | | | | C | | |
| 10) Hot Water/High Pressure Washing | | | | | | | | | | | | |
| 11) Slurry Sand Blasting | C | | | | | | | | | C | | |
| 12) Vacuum | | | | | | | | | | | | C |
| 13) Sediment Reworking | | | C | C | C | C | C | | | | | |
| 14) Excavation, Cleansing, and Replacement | | | | | | | | | | | | |
| 15) Cutting Vegetation | | | | | | | | | C | | C | C |
| 16) Chemical Treatment * | C | | | | | | | | | C | | |
| a) Oil Stabilization with Elastomizers | | | | | | | | | | | | |
| b) Protection of Beaches | | | | | | | | | | | | |
| c) Cleaning of Beaches | | | | | | | | | | | | |
| 17) *In situ* Burning of Shorelines * | | | | | | | | | | | | |
| 18) Nutrient Enhancement * | | | | | | | | | | | | |
| 19) Microbial Addition * | | | | | | | | | | | | |

* – Requires RRT approval
C – Conditional
R – Recommended – may be preferred alternative
NR – Not Recommended

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# 4000 Tidal Inlet Protection

This section should be used to prioritize the Tidal Inlet Protection Strategies (TIPS) identified in Section 5. The tidal inlets are grouped by Geographic Subdivision, as displayed in….. The tidal inlets are listed in order geographically, north to south. Table  summarizes the TIPS Prioritization, while more detailed explanations for each tidal inlet are contained in the remainder of this section. Tidal inlets must be prioritized based on the difficulty (class) and risk (environmental, economic, and total). Additional comments have been provided to further assist with identifying the total risk to that area and may be cross-referenced with the corresponding GRP(s).

## 4100 Tidal Inlet Protection Prioritization

**Table 13: Summary of TIPS Prioritization**

| | Rank | Tidal Inlet | Class | Environmental Risk | Economic Risk | Total Calculated Risk |
|---|---|---|---|---|---|---|
| UPPER KEYS | 11 | Old Rhodes Channel | B | 2 | 3 | 5 |
| | 9 | Broad Creek Channel | B | 2 | 2 | 4 |
| | 7 | Angelfish Creek | B | 1 | 3 | 4 |
| | 1 | Garden Cove/North Sound Creek | C | 1 | 2 | 3 |
| | 2 | South Sound Creek | B | 1 | 2 | 3 |
| | 10 | Tavernier Creek | B | 2 | 3 | 5 |
| | 8 | Snake Creek | B | 2 | 2 | 4 |
| | 3 | Whale Harbor | B | 2 | 1 | 3 |
| | 5 | Teatable Key | B | 1 | 3 | 4 |
| | 4 | Indian Key | B | 1 | 3 | 4 |
| | 6 | Lignumvitae | B | 1 | 3 | 4 |
| MIDDLE KEYS | 1 | Channel Two | A | 1 | 2 | 3 |
| | 2 | Channel Five | A | 1 | 2 | 3 |
| | 5 | Toms Harbor Cut | C | 3 | 2 | 5 |
| | 3 | Toms Harbor Channel | A | 2 | 2 | 4 |
| | 6 | Vaca Cut | B | 3 | 1 | 4 |
| | 4 | Boot Key Harbor | C | 3 | 1 | 4 |
| LOWER KEYS | 10 | Bahia Honda Channel | A | 1 | 3 | 4 |
| | 9 | Spanish Harbor Channel | B | 1 | 3 | 4 |
| | 3 | Pine Channel | B | 1 | 2 | 3 |
| | 2 | Newfound Harbor | B | 1 | 2 | 3 |
| | 1 | Niles Channel | B | 1 | 1 | 2 |
| | 4 | Kemp Channel | B | 1 | 3 | 4 |
| | 5 | Bow Channel | B | 1 | 3 | 4 |
| | 6 | Shark Channel | C | 1 | 3 | 4 |
| | 7 | Boca Chica Channel | B | 1 | 3 | 4 |
| | 8 | Cow Key | C | 2 | 3 | 5 |

| | |
|---|---|
| Class A | Extremely difficult due to large size and extreme physical conditions. Large expense because of magnitude of resources to protect. |
| Class B | Difficult due to strong tidal currents and/or large waves. |
| Class C | Less difficult due to small tidal prism and relatively weak tidal currents. |
| Risk Categories | (1 High, 2 Medium, 3 Low) |
| Total Calculated Risk | = Environmental Risk + Economic Risk |

# UPPER KEYS

TIDAL INLET PROTECTION STRATEGIES (TIPS) PRIORITIZATION

| RANK | *TIDAL INLET* CORRESPONDING GRP # TIPS # | CLASS | ENVIRONMENTAL RISK | ECONOMIC RISK | TOTAL CALCULATED RISK |
|---|---|---|---|---|---|
| 11 | *Old Rhodes Channel*<br>GRP: S. FL-40<br>TIPS: 1<br><br>Comments: Protection of Biscayne Bay/Card Sound Aquatic Preserves, Crocodile Lake National Wildlife Refuge National Marine Sanctuary; Mangroves, wading birds, Seagrass, Hard bottom community; Sea turtles and crocodiles. | B | 2 | 3 | 5 |
| 9 | *Broad Creek Channel*<br>GRP: S. FL-41<br>TIPS: 2<br><br>Comments: Protection of Biscayne National Park, Florida Keys National Marine Sanctuary, Biscayne Bay/Card Sound Aquatic Preserves; undeveloped mangroves with tidal creeks, wading birds, swimming birds; Crocodiles and sea turtles. | B | 2 | 2 | 4 |
| 7 | *Angelfish Creek Channel*<br>GRP: S. FL-41<br>TIPS: 3<br><br>Comments: Protection of Biscayne Bay/Card Sound Aquatic Preserves, Crocodile Lake National Wildlife Refuge National Marine Sanctuary; Mangroves, Endangered species habitats, Corals and hard "live" bottom, Class III outstanding Florida waters; Undeveloped mangroves with tidal creeks, islands; American crocodile, West Indian manatee | B | 1 | 3 | 4 |
| 1 | *Garden Cove/North Sound Creek*<br>GRP: S .FL-39<br>TIPS: 4<br><br>Comments: John Pennekamp State Park, Florida Keys National Marine Sanctuary, extensive undeveloped mangrove habitat with tidal creeks, Class III outstanding Florida Waters, access to Adams Cut; Bald eagle, manatee, crocodile, sea turtles, smalltooth sawfish. | C | 1 | 2 | 3 |

| | |
|---|---|
| Class A | Extremely difficult due to large size and extreme physical conditions. Large expense because of magnitude of resources to protect. |
| Class B | Difficult due to strong tidal currents and/or large waves. |
| Class C | Less difficult due to small tidal prism and relatively weak tidal currents. |
| Risk Categories | (1 High, 2 Medium, 3 Low) |
| Total Calculated Risk | = Environmental Risk + Economic Risk |

# UPPER KEYS

TIDAL INLET PROTECTION STRATEGIES (TIPS) PRIORITIZATION

| RANK | *TIDAL INLET* CORRESPONDING GRP # TIPS # | CLASS | ENVIRONMENTAL RISK | ECONOMIC RISK | TOTAL CALCULATED RISK |
|---|---|---|---|---|---|
| 2 | *South Sound Creek*<br>GRP: S. FL-27<br>TIPS: 5<br><br>Comments: John Pennekamp State Park, Florida Keys National Marine Sanctuary, extensive undeveloped mangrove habitat with tidal creeks, Class III outstanding Florida Waters, access to Adams Cut; West Indian manatee and marine mammals. | B | 1 | 2 | 3 |
| 10 | *Tavernier Creek Channel*<br>GRP: S. FL-28<br>TIPS: 6<br><br>Comments: Everglades National Park, Florida Keys National Marine Sanctuary; Undeveloped and developed shoreline (sea walls/rip rap); Waterbird colonies, Seagrass Bed Community, Fishes; Waterbird colonies, Wading birds, Seagrass Bed Community, Fishes; Manatee, Smalltooth Sawfish, Sea Turtles (Green, Loggerhead, Hawksbill, Kemp's Ridley)(Nesting and Non-nesting), Crocodiles, Bald Eagle | B | 2 | 3 | 5 |
| 8 | *Snake Creek Channel*<br>GRP: S. FL-26<br>TIPS: 7<br><br>Comments: Only high clearance bridge (draw bridge) between Jewfish Creek and Indian Key Channel, USCG Station Islamorada, Everglades National Park, National Marine Sanctuary; Undeveloped mangroves and tidal creeks, developed shoreline with seawalls/riprap. | B | 2 | 2 | 4 |
| 3 | *Whale Harbor Channel*<br>GRP: S. FL-26<br>TIPS: 8<br><br>Comments: Protection of Everglades National Park, Florida Keys National Marine Sanctuary, Cotton Key waterbird colonies, undeveloped mangroves and tidal creeks, shallow seagrass; Bald eagle. | B | 2 | 1 | 3 |

| | |
|---|---|
| Class A | Extremely difficult due to large size and extreme physical conditions. Large expense because of magnitude of resources to protect. |
| Class B | Difficult due to strong tidal currents and/or large waves. |
| Class C | Less difficult due to small tidal prism and relatively weak tidal currents. |
| Risk Categories | (1 High, 2 Medium, 3 Low) |
| Total Calculated Risk | = Environmental Risk + Economic Risk |

# UPPER KEYS

TIDAL INLET PROTECTION STRATEGIES (TIPS) PRIORITIZATION

| RANK | *TIDAL INLET* CORRESPONDING GRP # TIPS # | CLASS | ENVIRONMENTAL RISK | ECONOMIC RISK | TOTAL CALCULATED RISK |
|---|---|---|---|---|---|
| 5 | *Teatable Key Channel*<br>GRP: S. FL-25<br>TIPS: 9<br>Comments: Protection of Lignumvitae Key State Park and Aquatic Preserve Everglades National Park, Florida Keys National Marine Sanctuary; Waterbird colonies and rookeries-great white herons, Fishes, Corals, invertebrates associated with shallows; Rocky shores, Mangroves, Shallow flats, Seagrass beds; Manatee, Smalltooth Sawfish, Sea Turtles (Green, Loggerhead, Hawksbill, Kemp's Ridley)(Nesting and Non-nesting), Crocodiles, Bald Eagle. | B | 1 | 3 | 4 |
| 4 | *Indian Key Channel*<br>GRP: S. FL-25<br>TIPS: 10<br>Protection of Lignumvitae Key State Park and Aquatic Preserve, Everglades National Park, Florida Keys National Marine Sanctuary; Waterbird colonies and rookeries-great white herons, Fishes, Corals, invertebrates associated with shallows; Rocky shores, Mangroves, Shallow flats, Seagrass beds; Manatee, Smalltooth Sawfish, Sea Turtles (Green, Loggerhead, Hawksbill, Kemp's Ridley)(Nesting and Non-nesting), Crocodiles, Bald Eagle. | B | 1 | 3 | 4 |
| 6 | *Lignumvitae Channel*<br>GRP: S. FL-25<br>TIPS: 11<br>Comments: Protection of Lignumvitae Key State Park and Aquatic Preserve Everglades National Park, Florida Keys National Marine Sanctuary; Waterbird colonies and rookeries-great white herons, Fishes, Corals, invertebrates associated with shallows; Rocky shores, Mangroves, Shallow flats, Seagrass beds; Manatee, Smalltooth Sawfish, Sea Turtles (Green, Loggerhead, Hawksbill, Kemp's Ridley)(Nesting and Non-nesting), Crocodiles, Bald Eagle. | B | 1 | 3 | 4 |

| | |
|---|---|
| Class A | Extremely difficult due to large size and extreme physical conditions. Large expense because of magnitude of resources to protect. |
| Class B | Difficult due to strong tidal currents and/or large waves. |
| Class C | Less difficult due to small tidal prism and relatively weak tidal currents. |
| Risk Categories | (1 High, 2 Medium, 3 Low) |
| Total Calculated Risk | = Environmental Risk + Economic Risk |

# MIDDLE KEYS

TIDAL INLET PROTECTION STRATEGIES (TIPS) PRIORITIZATION

| RANK | *TIDAL INLET* CORRESPONDING GRP # TIPS # | CLASS | ENVIRONMENTAL RISK | ECONOMIC RISK | TOTAL CALCULATED RISK |
|---|---|---|---|---|---|
| 1 | *Channel Two*<br>GRP: S. FL-22<br>TIPS: 12<br><br>Comments: Longest bridges south of Key Largo allowing direct uninhibited flow to Everglades National Park from Ocean Side, Florida Keys National Marine Sanctuary; Seagrass , Corals, Sponges, Calcareous Algae, Gamefish; Shallow Seagrass, Coral, Calcerous AlgaeBand, Unique Florida Bay Benthic Habitat, Most Biologically Diverse Habitat in Florida Bay, Important Gamefish Habitat; Manatee, Smalltooth Sawfish, Sea Turtles (Green, Loggerhead, Hawksbill, Kemp's Ridley)(Nesting and Non-nesting), Crocodiles, Bald Eagle. | A | 1 | 2 | 3 |
| 2 | *Channel Five*<br>GRP: S. FL-22<br>TIPS: 13<br><br>Comments: Longest bridges south of Key Largo allowing direct uninhibited flow to Everglades National Park from Ocean Side, Florida Keys National Marine Sanctuary; Seagrass , Corals, Sponges, Calcareous Algae, Gamefish; Shallow Seagrass, Coral, Calcerous Algae Band, Unique Florida Bay Benthic Habitat, Most Biologically Diverse Habitat in Florida Bay, Important Gamefish Habitat; Manatee, Smalltooth Sawfish, Sea Turtles (Green, Loggerhead, Hawksbill, Kemp's Ridley)(Nesting and Non-nesting), Crocodiles, Bald Eagle. | A | 1 | 2 | 3 |
| 5 | *Toms Harbor Cut*<br>GRP: S. FL-21<br>TIPS: 14<br><br>Comments: Florida Keys National Marine Sanctuary; Florida Bay, Shallow seagrass and hardbottom banks, smalltooth sawfish and others general to Florida Bay. | C | 3 | 2 | 5 |
| 3 | *Toms Harbor Channel*<br>GRP: S. FL-21<br>TIPS: 15<br><br>Comments: Florida Keys National Marine Sanctuary; Residential, Nearshore Hard Bottom, Seagrass | A | 2 | 2 | 4 |

| | |
|---|---|
| Class A | Extremely difficult due to large size and extreme physical conditions. Large expense because of magnitude of resources to protect. |
| Class B | Difficult due to strong tidal currents and/or large waves. |
| Class C | Less difficult due to small tidal prism and relatively weak tidal currents. |
| Risk Categories | (1 High, 2 Medium, 3 Low) |
| Total Calculated Risk | = Environmental Risk + Economic Risk |

# MIDDLE KEYS

TIDAL INLET PROTECTION STRATEGIES (TIPS) PRIORITIZATION

| RANK | *TIDAL INLET* CORRESPONDING GRP # TIPS # | CLASS | ENVIRONMENTAL RISK | ECONOMIC RISK | TOTAL CALCULATED RISK |
|---|---|---|---|---|---|
| 6 | *Vaca Cut*<br>GRP: S. FL-19<br>TIPS: 16<br><br>Comments: John Pennekamp State Park, Florida Keys National Marine Sanctuary, extensive undeveloped mangrove habitat with tidal creeks, Class III outstanding Florida Waters, access to Adams Cut; West Indian manatee and marine mammals. | B | 3 | 1 | 4 |
| 4 | *Boot Key Harbor*<br>GRP: S. FL-19<br>TIPS: 17<br><br>Comments: Florida Keys National Marine Sanctuary; Sheltered mangroves inside harbor; Residential/Commercial fishing docks, Inlet to Boot Key Harbor, Shallow Seagrass, Hardbottom. | C | 3 | 1 | 4 |

| | |
|---|---|
| Class A | Extremely difficult due to large size and extreme physical conditions. Large expense because of magnitude of resources to protect. |
| Class B | Difficult due to strong tidal currents and/or large waves. |
| Class C | Less difficult due to small tidal prism and relatively weak tidal currents. |
| Risk Categories | (1 High, 2 Medium, 3 Low) |
| Total Calculated Risk | = Environmental Risk + Economic Risk |

# LOWER KEYS

## TIDAL INLET PROTECTION STRATEGIES (TIPS) PRIORITIZATION

| RANK | *TIDAL INLET* CORRESPONDING GRP # TIPS # | CLASS | ENVIRONMENTAL RISK | ECONOMIC RISK | TOTAL CALCULATED RISK |
|---|---|---|---|---|---|
| 10 | *Bahia Honda Channel*<br>GRP: S. FL-15<br>TIPS: 18<br><br>Comments: Florida Keys National Marine Sanctuary, Great White Heron National Wildlife Refuge, Bahia Honda State Park; Endangered Mammals; Mangroves; Key Deer, Lower Keys Marsh Rabbit. | A | 1 | 3 | 4 |
| 9 | *Spanish Harbor Channel*<br>GRP: S. FL-15<br>TIPS: 19<br><br>Comments: Florida Keys National Marine Sanctuary, Great White Heron National Wildlife Refuge; Undeveloped Mangroves, developed shoreline; Seagrass, Birds, Endangered species; Mangroves, Tidal creeks, Seagrass; Key Deer. | B | 1 | 3 | 4 |
| 3 | *Pine Channel*<br>GRP: S. FL-21<br>TIPS: 20<br><br>Comments: Florida Keys National Marine Sanctuary,National Key Deer Refuge, Great White Heron National Wildlife Refuge, should protect Pine Channel inlet; Mostly undeveloped mangroves, few developed residential canal systems (Sea walls/rip rap), Seagrass, Birds, Endangered species; Mangroves, Tidal creeks, Seagrass; Key Deer. | B | 1 | 2 | 3 |
| 2 | *Newfound Harbor Channel*<br>GRP: S. FL-13<br>TIPS: 21<br><br>Comments: Florida Keys National Marine Sanctuary, National Key Deer Refuge, Great White Heron National Wildlife Refuge; Mostly undeveloped mangroves, few developed residential canal systems (Sea walls/rip rap), Seagrass, Birds, Endangered species; Mangroves, Tidal creeks, Seagrass; Key Deer. | B | 1 | 2 | 3 |

| | |
|---|---|
| Class A | Extremely difficult due to large size and extreme physical conditions. Large expense because of magnitude of resources to protect. |
| Class B | Difficult due to strong tidal currents and/or large waves. |
| Class C | Less difficult due to small tidal prism and relatively weak tidal currents. |
| Risk Categories | (1 High, 2 Medium, 3 Low) |
| Total Calculated Risk | = Environmental Risk + Economic Risk |

# LOWER KEYS

TIDAL INLET PROTECTION STRATEGIES (TIPS) PRIORITIZATION

| RANK | *TIDAL INLET*<br>CORRESPONDING GRP #<br>TIPS # | CLASS | ENVIRONMENTAL RISK | ECONOMIC RISK | TOTAL CALCULATED RISK |
|---|---|---|---|---|---|
| 1 | *Niles Channel*<br>GRP: S. FL-13<br>TIPS: 22<br><br>Comments: Only bridge in Lower Keys with high clearance; Florida Keys National Marine Sanctuary, Great White Heron National Wildlife Refuge; undeveloped mangroves, Seagrass, Birds, Endangered species, Key Deer; Mangroves, Tidal creeks, Seagrass, Hardbottom. | B | 1 | 1 | 2 |
| 4 | *Kemp Channel*<br>GRP: S. FL-13<br>TIPS: 23<br><br>Comments: Florida Keys National Marine Sanctuary, Great White Heron National Wildlife Refuge; Mostly undeveloped mangroves, some developed shoreline (sea walls/rip rap), Seagrass, Birds, Endangered species; Mangroves, Tidal creeks, Seagrass, Hardbottom. | B | 1 | 3 | 4 |
| 5 | *Bow Channel*<br>GRP: S. FL-10<br>TIPS: 24<br><br>Comments: Florida Keys National Marine Sanctuary, Great White Heron National Wildlife Refuge; Choke point to N. W. Refuge, Exposed mudflats, Sheltered mangroves. | B | 1 | 3 | 4 |
| 6 | *Shark Channel*<br>GRP: S. FL-9<br>TIPS: 25<br><br>Comments: Florida Keys National Marine Sanctuary, Great White Heron National Wildlife Refuge; Mangroves, Seagrass, Birds, Endangered species; Mangroves, Tidal creeks, Shallow Seagrass / Hardbottom; Silver Rice Rat, Lower Keys Marsh Rabbit. | C | 1 | 3 | 4 |

| | |
|---|---|
| Class A | Extremely difficult due to large size and extreme physical conditions. Large expense because of magnitude of resources to protect. |
| Class B | Difficult due to strong tidal currents and/or large waves. |
| Class C | Less difficult due to small tidal prism and relatively weak tidal currents. |
| Risk Categories | (1 High, 2 Medium, 3 Low) |
| Total Calculated Risk | = Environmental Risk + Economic Risk |

# LOWER KEYS

TIDAL INLET PROTECTION STRATEGIES (TIPS) PRIORITIZATION

| RANK | *TIDAL INLET* CORRESPONDING GRP # TIPS # | CLASS | ENVIRONMENTAL RISK | ECONOMIC RISK | TOTAL CALCULATED RISK |
|---|---|---|---|---|---|
| 7 | *Boca Chica Channel*<br>GRP: S. FL-8<br>TIPS: 26<br><br>Comments: Florida Keys National Marine Sanctuary, Great White Heron National Wildlife Refuge; Mangroves; Channel mangroves, Shallow Seagrass / Hardbottom. | B | 1 | 3 | 4 |
| 8 | *Cow Key Channel*<br>GRP: S. FL-8<br>TIPS: 27<br><br>Comments: Florida Keys National Marine Sanctuary, Great White Heron National Wildlife Refuge; Mangroves; Mostly developed shoreline (sea wall/rip rap) Channel mangroves, Shallow Seagrass / Hardbottom. | C | 2 | 3 | 5 |

| | |
|---|---|
| Class A | Extremely difficult due to large size and extreme physical conditions. Large expense because of magnitude of resources to protect. |
| Class B | Difficult due to strong tidal currents and/or large waves. |
| Class C | Less difficult due to small tidal prism and relatively weak tidal currents. |
| Risk Categories | (1 High, 2 Medium, 3 Low) |
| Total Calculated Risk | = Environmental Risk + Economic Risk |

# Florida Keys
# Area Contingency Plan
# (FKACP)

## Risk Analysis: Places of Refuge Policy

# Annex BB

May 2022

## Record of Changes

| Change Number | Change Description | Section Number | Change Date | Name |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
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## Table of Contents

# 1000 Introduction

A ship in need of assistance may require a temporary place of refuge with adequate water depth for lightering or repairs in order to protect the marine environment. Ships may need to be brought into a harbor, anchored, or moored in protected waters, or temporarily beached in order the safely make repairs and stop the loss of oil or other hazardous substances. Disabled ships need to be repaired in order to resume safe navigation and prevent a shipwreck resulting in the loss of fuel and/or cargo. If leaking ships are not repaired, spilled oil and hazardous substances may affect the public health, environmental resources, and shorelines.

There is no single place of refuge for all ships and all situations. Decisions relating to Places of Refuge encompass a wide range of security, environmental, social, economic, and operational issues that vary according to each situation, including the environmental sensitivity and protected status of the areas within or adjacent to a potential place of refuge. The initial decision to permit a ship to seek a place of refuge, as well as the decisions and actions implementing that decision, are based upon an assessment of the risk factors involved and the exercise of sound judgment and discretion.

Places of Refuge are sites that could be used for a disabled or damaged ship needing shelter for repairs. While information on potential sites may be pre-inventoried, this does not imply that any of these sites will be the location of choice in a future event. Selection of a place of refuge by the U.S. Coast Guard Captain of the Port in consultation with other Federal agencies, State, Tribal, and Local governments, and other stakeholders will always be made on a case-by-case basis. If time allows the Captain of the Port will activate a Unified Command under the Incident Command System (ICS) to address a request for a place of refuge.

When a Place of Refuge incident occurs that is likely to involve more than one Area Contingency Plan, existing cross-jurisdictional protocols will be activate.

This section incorporates a decision-making process for Masters to use when requesting a place of refuge. The guidelines in this section incorporate the Guidelines on Places of Refuge for Ships in need of Assistance adopted by the International Maritime Organization (IMO), and assume use of ICS to manage the incident.

When safety of life is involved, existing search and rescue conventions and protocols should be used. When a ship is in need of assistance but safety of life is not involved, these guidelines should be followed to evaluate whether a ship should remain in the same position, continue on its voyage, be brought into a place of refuge, taken out to sea, or intentionally scuttled in deep water.

# 1100 Purpose

The purpose of this annex is to provide a decision-making process for response to requests for Places of Refuge; and to apply existing procedures for coordinated trans-boundary and trans-jurisdictional decision-making when necessary in responding to a request for the same.

## 1200 Definitions

*Ship in need of assistance* means a ship in a situation, apart from one requiring rescue of persons on board, which could lead to loss of the vessel or an environmental or navigational hazard.

A *ship* is defined as any vessel (self-propelled or non self-propelled) that can be used for the commercial carriage of cargo or passengers, as well as non-commercial applications, including but not limited to freight ships, tank ships, deck barges, tank barges, and large yachts.

*Place of refuge* means a place where a ship in need of assistance can take action to stabilize its condition, reduce the hazards to navigation, and to protect human life and the environment. Places of Refuge can be man-made harbors, port, natural embayments, or offshore waters.

*MAS* means a Maritime Assistance Service, as defined in the International Maritime Organization's resolution. PLEASE NOTE: In the US and Canada, the United States Coast Guard and the Canadian Coast Guard respectively are the agencies responsible for receiving reports and serving as the point of contact for the shipmaster while notifying reports and serving as the point of contact for the shipmaster while notifying other agencies in the event of an incident.

*Guidelines* mean each of the decision-making guidelines and matter set forth above and below. Notwithstanding any such word as "may," "should," "will," "must," or "shall:" these guidelines are intended solely as factors that may be considered during the execution and implementation of any such decisions.

*Force Majeure* is a doctrine of international law, which confers limited legal immunity upon vessels which are forces to seek refuge or repairs within the jurisdiction of another nation due to uncontrollable external forces or conditions. This limited immunity prohibits coastal state enforcement of its laws, which were breached due to the vessel's entry under force majeure.

## 1300 Jurisdiction

Under 33 CFR Part 6.04, the U.S. Coast Guard Captain of the Port (COTP) has authority to order ships into and out of ports, harbors, and embayment in order to protect the public, the environment and maritime commerce. The COTP is the designated Federal On-Scene Coordinator (FOSC) for the U.S. coastal zone as per the National Contingency Plan (NCP), 40 CFR part 300. There may be some maritime homeland security situation where the COTP, acting as the Federal Maritime Security Coordinator (FMSC), may have access to Sensitive Security Information (SSI) and/or classified information (not readily shareable with other stakeholders) that may impact the final disposition of a vessel requesting "Force Majeure" or permitting a vessel to seek a place of refuge or approval of a salvage plan. These circumstances are dealt with on a case-by-case basis and information shared with other agencies is on a "need to know" basis.

The State of Florida has the authority to represent and protect State interests for incidents within State waters. The State has jurisdiction over state-owned shoreline and in near-shore waters out to three miles.

Local governments or port authorities may have authority over near-shore waters including ports and harbors. If so, a local government or port representative may serve as a Local On-Scene Coordinator per the FKACP.

Natural Resource agencies have authority to manage their lands, marine areas, wildlife, habitat, and natural resources as mandated in their laws and regulations. Natural Resource agencies fill position in ICS and provide resource information to the UC. In addition, Natural Resource agencies are member of the Region IV Regional Response Team (RRT).

Tribal governments may own land and have fishing rights in marine areas that could be impacted by a ship seeking a place of refuge. If so, a tribal government representative(s) may fill position in ICS or may serve as a Local On-Scene Coordinator per the FKACP.

The Master of the ship has control of the ship and is responsible for requesting a place of refuge from the COTP. The Master provides details on the status of the ship and justification for needing a place of refuge in accordance with the IMO Guidelines on Places of Refuge.

## 1400 Management Structure to Address Places of Refuge

If time allows, the COTP should consult with appropriate federal, state, and local stakeholders via the RRT or other appropriate mechanism to address a request for a place of refuge. A Unified Command (UC) may be activated as required. The UC should provide an opportunity for consultation with resource agencies, tribal governments, local authorities, and other stakeholders as appropriate. Technical specialists, such as marine engineers, maritime pilots, vessel inspectors/surveyors, or salvors may be activated to assist in managing the incident. The UC should utilize the checklists provided in this manual, based on pre-identified information whenever available, to determine the risk associated with the request. Once identified, an analysis should be performed balancing the public and environmental risks with the risks to the ship and the ship/cargo owner in order to decide is and where to move a ship in need of assistance.

If there is not time to activate a UC or the RRT, the COTP should make the decision whether to grant or deny the request for a place of refuge. To the extent possible, the COTP should use the checklists provided in this annex, and reference pre-identified potential Places of Refuge to select an appropriate site. Following the decision, the COTP should immediately notify appropriate stakeholders.

This annex provides a template for pre-identified information to support the decision making checklists below, consistent with section 3.5-3.6 of the IMO Guidelines on Places of Refuge for Ships in Need of Assistance.

# 2000 Decision Making Process

The COTP, in consultation with the UC and if available the RRT, should perform an objective analysis of the advantages and disadvantages of allowing or not allowing a ship in need of assistance to proceed to a place of refuge. This analysis should identify the potential environmental, social, economic, and security impacts at the site. The COTP will consider these multiple factors to determine the appropriate course of action to prevent and mitigate the short- and long-term impacts to public health and the environment, local commerce, the ship and the ship/cargo owners.

The COTP should evaluate consequences to the vessel and the environment:

- If the ship remains in the same position;
- If the ship continues on its voyage;
- If the ship reached a place of refuge;
- If the ship is taken out to sea; or
- If the ship is intentionally scuttled in deep water.

The decision-making process should evaluate each of these options using the following steps to determine if a ship in need of assistance should be granted a place of refuge. These steps are not in prioritized order, but should be addressed as part of a total assessment for each of the five options above.

## 2100 Step 1

The Master of the vessel, or his/her representative (the operating company and/or salvor), should request a place of refuge from the appropriate COTP. The Master should provide as much information as possible, including:

- The status of the ship. Crew, passengers, and weather;
- Medical issues, deaths, or needs of assistance and the specific assistance required;
- Intended actions and potential consequences if the request for a Place of Refuge is denied;
- If the ship is flooding, whether the pumping system is operable and is keeping up with the flooding rate;
- Status of vessel steering, propulsion, and firefighting capability;
- The steps already taken to mitigate the problem, and results;
- What needs or requirements will the ship have once in a place of refuge; and
- Status of notifications completed by Master: i.e. owners/operators/agents/Qualified Individuals/Class Society, etc.

## 2200 Step 2

When time allows, the COTP should consult with appropriate agencies via the RRT to address the issue, and activate a UC when the situation dictates. If there is not time to consult with partner agencies, the COTP should grant or deny the request for a place of refuge, and inform the State, other concerned agencies, and appropriate stakeholders at the earliest time to determine if any protective measures are required.

## 2300 Step 3

In either case, the COTP or UC should:

- Require the vessel Master, owner/operator, or agent; Qualified Individual etc. to contract with a salvor and oil spill response organization (OSRO), or other specialized contractor if this has not already been done;
- As the situation dictates, establish a command post and prepare to initiate a response;
- If the vessel is drifting, determine its trajectory to shore and potential impact sites;
- Notify the Federal Bureau of Investigation (FBI) Intelligence Coordination Center or the DHS Homeland Security Operations Center if there are any security concerns;
- When appropriate and if time allows, dispatch an inspection team with expertise appropriate to the situation to board the ship and evaluate conditions, depending on risk, sea conditions, security risk, nature of distress etc;
- Confer with the USCG MSC Ship Salvage Group, the vessel owners or naval architects;

In addition, the following factors will be evaluated to determine if the ship in need of assistance should remain in the same position, continue on its voyage, be taken out to sea, intentionally scuttled, or be directed to a place of refuge.

**Human Health & Safety**

[ ] Safety and Health condition of those on board as well as risk to public safety

**Environment**

[ ] The environmental consequences of staying put, continuing on its voyage, being taken out to sea, being intentionally scuttled in deep water, or going to a place of refuge (reference Step 5 below)

**Ship Status & Risk Factors**

[ ] The type and size of the ship
[ ] The status/seaworthiness of the ship, in particular buoyancy, stability, structural integrity, availability of propulsion and power generation, docking ability, progressive deterioration, etc.
[ ] Types, quantities, hazards, and condition of petroleum products, hazardous substances, and/or other cargo onboard
[ ] The impending threat to the ship or need for a pilot
[ ] Weather conditions and forecasts
[ ] The Master's ability to navigate the ship or need for a pilot
[ ] Distance and estimated time to reach a place of refuge
[ ] Vessel traffic in the area where the ship is currently located
[ ] Mitigation measures already taken
[ ] Determine crew status, health, staffing levels, etc.

**Response & Salvage Resources**

[ ] Availability or rescue tugs/tow vessels of sufficient size and power to aid the ship in distress
[ ] Salvage and spill response resources on-scene with the ship and available during transit

[ ] Vessel traffic in the potential destination area
[ ] Access to a pier or dock with repair facilities
[ ] Whether salvage and lightering can safely be performed at each alternative location

**Other Command Management Factors**

[ ] Provisions of financial security and insurance by the ship owner/operator
[ ] Agreement by the Master and owner/operator of the ship to the proposals of the COTP/UC
[ ] Public expectations and media outreach
[ ] Capability of Master to detain crew on board until cleared by Customs and Border Protection and the USCG

## 2400 Step 4

If the COTP/UC determines that the risks are generally acceptable to direct a ship into a place of refuge, the following factors should be further evaluated to determine a specific place.

**Human Health & Safety**

[ ] Assessment of human factors, including crew fatigue and overall health
[ ] Safety of persons at or near the place of refuge with regard to risks of explosion, fire, and pollution
[ ] Security concerns associated with a port or harbor area
[ ] Available emergency response capabilities and evacuation routes and facilities
[ ] Available fire-fighting and police capabilities

**Environment**

[ ] Potential environmental and cultural impacts of pollution (reference Step 5 below) or the response to a pollution incident
[ ] Existing resource protection strategies and availability or response resources to implement the strategies
[ ] Status of potential Place of Refuge (protection status, commercial area, near population centers)

**Port or Anchorage Area Criteria**

[ ] The type and size of the ship in relation to the size of the place of refuge
[ ] Adequate water depth to accommodate the ship
[ ] Navigational approach, including vessel traffic and associated risks
[ ] Pilotage requirements
[ ] Tides and currents
[ ] Seasonal conditions
[ ] Anchoring ground or suitable docking facilities
[ ] Availability of repair facilities such as dry docks, workshops, and cranes
[ ] Military operations in vicinity
[ ] Availability of cargo transfer and storage facilities
[ ] Land/Air access
[ ] Weather and sea state including prevailing winds
[ ] Requirements from port authorities, area landowners/managers

[ ] Are the proposed activities specifically prohibited and/or are there permitting or notification requirements that need to be followed

**Beaching Site Criteria**

[ ] Depth of water, not covering vessel deck
[ ] The type of shore bottom
[ ] Navigational approach and pilotage requirements
[ ] Seasonal conditions
[ ] The openness of the site to ocean waves/currents
[ ] Land and/or air access
[ ] Prevailing wind patterns and forecasts
[ ] Tidal range
[ ] Vessel stability and structure for beaching

**Economic Factors**

[ ] Potential economic impacts of pollution
[ ] Potential disruptions to other port operations or marine commerce
[ ] Potential impacts on local fisheries, commercial fisheries, and/or natural resources exposed on the transit route
[ ] Economic impact of the decision on the ship owner/operator and the cargo owner
[ ] Economic impact related to loss of natural resources, area quality and recreational use

**Response, Salvage, Firefighting, and Repair Resources**

[ ] Available salvage and spill response resources
[ ] Available firefighting resources
[ ] Availability or appropriate and compatible lightering equipment and receiving vessels
[ ] Availability of product storage (e.g., tank barge, shore-side storage tank, other ships)
[ ] Availability of skilled labor and trained personnel
[ ] Access to repair equipment and facilities
[ ] Salvage and response vessel access to the Place of Refuge

**Other Command Management Factors**

[ ] Liability, insurance, and compensation issues and limits
[ ] Requirements of jurisdictional authorities for financial responsibility and bonding
[ ] Required notifications such as maritime pilots, Immigration, Customs, and security
[ ] Transitional or trans-jurisdictional coordination agreements/plans, if applicable
[ ] Public expectations and media outreach

## 2500 Step 5

To protect environmental, historic, and cultural resources, the COTP/UC should determine the presence of and proximity to the following for any Place of Refuge location:

[ ] Resources at risk such as threatened or endangered species, seasonal breeding locations, or designated critical habitat
[ ] Essential fish habitat
[ ] Maricultural/aquaculture facilities
[ ] Other priority sensitive areas, including cultural and historic properties
[ ] Other resources, lands and/or waters with special designations
[ ] Offshore fisheries
[ ] Near shore fisheries
[ ] Subsistence use patterns and treaties
[ ] Recreation/tourism information
[ ] Spill trajectories

## 2600 Step 6

After the final analysis has been completed and a decision made, the COTP or UC through a formal document (such as a Decision Memo), should ensure that other authorities and stakeholders are appropriately informed.

# 3000 Area List of Potential Stakeholders

The FKAC should ensure that current contact information is available through the committee members for the categories listed below:

- Federal On-Scene Coordinator
- State On-Scene Coordinator
- Federal Natural Resource Trustees
- State Natural Resource Trustees
- Federally-Recognized Tribes or First Nations
- Land Owners/Land Managers in addition to trustees identified above
    - Local (e.g., parish/municipal) governments
    - Potentially impacted facility owners
    - Port Authorities
- Other Stakeholders or Agencies
    - Regional Citizen Advisory Councils or other appropriate public interest groups
    - Harbor Safety Committees
    - Selected commercial operator (e.g., fish hatcheries, agriculture sires)
    - Immigration, Customs, the Federal Bureau of Investigation, the Department of Homeland Security, and the Federal Emergency Management Agency
    - Maritime pilot groups serving the area
    - Center of Disease Control/State and Local Health Departments

# 4000 Template for Responding to Requests for Places of Refuge

Ideally, the FKAC should gather information on all potential Places of Refuge within the boundaries of the committee.

This annex provides a template for the collection of general information on the planning as well as specific information on sites such as docks and piers, anchorages and moorings, and possible beaching sites. The checklists in this template support the decision-making checklist in the Places of Refuge Manual by providing for the advance collection of information and are therefore crucial to expediting decision-making.

While information on possible sites may be pre-inventoried, this does not imply that any of these sites will be the location of choice in a future event. Selection of a place of refuge by the COTP in consultation with other agencies and stakeholders will always be made on a case-by-case basis.

A workgroup may be established to pre-identify information on coastal port or places that will give the COTP valuable information on a decision to choose a Place of Refuge in an emergency situation. The workgroup may include representatives from the USCG, the State, Local and Natural Resource Agencies, and marine pilots associations. In addition, native tribes and other interested and knowledgeable stakeholders should be invited to participate.

## 4100 General Information

[ ] Casualty risk associated with the routine vessel traffic routes in the planning area
[ ] Availability of rescue tugs/tow vessels of sufficient size and power to aid in the vessel in distress and predicted arrival times
[ ] Salvage, lightering, firefighting, and spill response resources available to this jurisdiction, including delivery times
[ ] Transnational or trans-jurisdictional coordination agreements/plans, if applicable
[ ] Shorelines likely to be impacted either during transits to a place of refuge or if refuge is denied:
[ ] Shoreline names and locations as appropriate
[ ] Shoreline types and generally acceptable cleaning methods
[ ] Description of sensitive resources/areas along the coastlines likely to be impacted, including fisheries, aquaculture sites, cultural and historic sites, Threatened and Endangered species, subsistence use, recreation/tourism, or specially designated lands or waters
[ ] Existing resource protection strategies
[ ] General wind/wave/current information and source for real-time tide/wind/wave/current information
[ ] Seasonal conditions
[ ] Potential risks to populations along the coasts with regard to explosion, fire and pollution; availability of evacuation routes
[ ] General information on coastal vessel traffic patterns
[ ] Other pertinent information

# 4200 Choosing a Place of Refuge

## 4201 Docks and Piers

For each site determine:

[ ] Site number (to correspond to map/chart showing location)
[ ] Site name
[ ] Site location
[ ] Water depth at mean low tide
[ ] Beach/shoreline types and generally
[ ] Bottom types
[ ] General wind/wave/current information
[ ] Openness of the site to ocean waves/currents
[ ] Source for real-time tide/wind/wave/current information
[ ] Seasonal conditions
[ ] Standard navigational approach, including vessel traffic patterns and associate risks
[ ] Pilotage requirements
[ ] Nearby port operations and potential impacts
[ ] Brief description of port facilities
[ ] Brief description of repair facilities/capabilities/skilled labor
[ ] Availability or cargo transfer and storage facilities
[ ] Land and/or air access
[ ] Risk to persons at or near the location with regard to explosion, fire, and pollution; availability or evacuation routes
[ ] Description of sensitive resources/areas at the site and along potential access routes to that site, including fisheries, aquaculture sites, cultural and historic sites, Threatened and Endangered species, subsistence use, recreation/tourism, or specially designated lands or waters
[ ] Existing resource protection strategies
[ ] Availability of salvage, spill response, and emergency response resource including police and firefighting
[ ] Security measures in place
[ ] Requirements for permission from area landowners/managers
[ ] Financial assurance requirements of port authorities
[ ] Liability and compensation issues and limits
[ ] Required notification such as Immigration or Customs
[ ] Identification of Stakeholders including 24/7 contact information
[ ] Other pertinent information

## 4202 Anchorage and Moorings

For each site determine:

[ ] Site number (to correspond to map/chart showing location)
[ ] Site name
[ ] Site location (descriptive and lat/long coordinates)
[ ] Water depths at mean low tide
[ ] Beach/shoreline types and generally accepted cleaning methods
[ ] Bottom types

[ ] General wind/wave/current information
[ ] Openness of the site to ocean waves/currents
[ ] Source for real-time tide/wind/wave/current information
[ ] Seasonal conditions
[ ] Standard navigational approach, including vessel traffic and associated risks
[ ] Pilotage requirements
[ ] Nearby port operations, if any, and potential impacts
[ ] Brief description of the facilities (if any)
[ ] Availability of cargo transfer and storage vessels
[ ] Land and/or air access
[ ] Risks to persons at or near the location with regard to explosion, fire, and pollution; availability of evacuation routes
[ ] Description of sensitive resources/area at the site and along potential access routes to that site, including fisheries, aquaculture sites, cultural and historic sites, Threatened and Endangered species, subsistence use, recreation/tourism, or specially designated lands or waters
[ ] Existing resource protection strategies
[ ] Availability of salvage, spill response, and emergency response resource, including police and firefighting, and their potential access to the site
[ ] Security measures in place
[ ] Requirements for permission from area landowners/managers, is applicable
[ ] Financial accordance requirements of local port authorities, is applicable
[ ] Liability and compensation issues and limits
[ ] Required notifications such as Immigration or Customs
[ ] Identification of stakeholders including 24/7 contact information
[ ] Other pertinent information

## 4203 Beaching Sites

For each site determine:
[ ] Site number (to correspond to map/chart showing location)
[ ] Site name
[ ] Site location (descriptive and lat/long coordinates)
[ ] Water depths at mean low tide
[ ] Beach/shoreline types and generally accepted cleaning methods
[ ] Bottom types
[ ] General wind/wave/current information
[ ] Openness of the site to ocean waves/currents
[ ] Source for real-time tide/wind/wave/current information
[ ] Seasonal conditions
[ ] Standard navigational approach, including vessel traffic and associated risks
[ ] Pilotage requirements
[ ] Nearby port operations, if any, and potential impacts
[ ] Brief description of the facilities (if any)
[ ] Availability of cargo transfer and storage vessels
[ ] Land and/or air access
[ ] Risks to persons at or near the location with regard to explosion, fire, and pollution; availability of evacuation routes

[ ] Description of sensitive resources/area at the site and along potential access routes to that site, including fisheries, aquaculture sites, cultural and historic sites, Threatened and Endangered species, subsistence use, recreation/tourism, or specially designated lands or waters
[ ] Existing resource protection strategies
[ ] Availability of salvage, spill response, and emergency response resource, including police and firefighting, and their potential access to the site
[ ] Security measures in place
[ ] Requirements for permission from area landowners/managers, is applicable
[ ] Financial accordance requirements of local port authorities, is applicable
[ ] Liability and compensation issues and limits
[ ] Required notifications such as Immigration or Customs
[ ] Identification of stakeholders including 24/7 contact information
[ ] Other pertinent information

# Florida Keys
# Area Contingency Plan
# (FKACP)

## Site Safety Plan

# Annex CC

May 2022

## Record of Changes

| Change Number | Change Description | Section Number | Change Date | Name |
|---|---|---|---|---|
| 1 | | | | |
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## Table of Contents

# 1000 Introduction

This annex was developed to provide Federal and State health and safety guidance for oil/hazardous substance incidents within the boundaries of the Florida Keys Area Committee (FKAC)'s area of responsibility.

## 1100 Purpose

The purpose of health and safety efforts conducted during an environmental emergency are to ensure the protection of the responders, clean-up crews and the public from the possible hazards. The guidance contained in this policy document is intended to assist Safety Officers to establish, manage, and operate a safe spill response to the reported incident.

# 2000 Health and Safety

## 2100 Federal Health and Safety Guidance

Federal and state government employees, private industry employees, and other contract personnel involved in oil spill response activities must comply with all applicable worker health and safety laws and regulations. The Occupational Safety and Health (OSH) Act was enacted December 29, 1970 and granted authority to the Secretary of Labor to promulgate, modify, and revoke safety and health standards. The primary federal regulations for hazardous waste operations and emergency response are found in 29 CFR Part 1910.120. This regulation specifies the safety and health requirements for employees involved in clean-up operations at uncontrolled hazardous waste sites being cleaned up under government mandate and in certain hazardous waste treatment, storage, and disposal operations conducted under the Resource Conservation and Recovery Act of 1976 (RCRA). The regulations apply to both emergency response and post-emergency response clean-up of hazardous substance spills. The definition of hazardous substance used in these regulations in much broader than CERCLA, encompassing all materials listed in 49 CFR Part 172. Thus, most oils and oil spill responses are covered by these regulations. Response policies shall be consistent with federal regulations.

The Occupational Safety and Health Administration (OSHA) classifies an area impacted by oil as an uncontrolled hazardous waste site. The role of the site safety and health supervisor is to assess the site, determine the safety and health hazards present, and determine if Federal OSHA regulations apply. If an OSHA field compliance officer is on scene, he/she should be consulted to determine the applicability of OSHA regulations. Disputes should be referred to the Department of Labor representative of the RRT.

One key provision of the OSH Act provided 50/50 funding to those states that developed their own state program, which is at least as effective as the federal program in providing safe and healthful employment. The State of Florida does not have a federally approved state managed program; therefore, all workers involved with oil spill response activities must comply with the federal regulations.

## 2200 Florida State Health and Safety Guidance

Federal regulations specify minimum training levels for responders to hazardous substance incidents. OSHA enforces the requirements for federal and private workers. State and local employees must follow the same regulations.

# 3000 Safety Officer Advance Planning

The incident Safety Officer (SOFR) will need personnel and equipment very quickly in the event of an incident. It would be beneficial to have preset lists of resources, equipment, personal protective equipment (PPE), and personnel for a large incident that could be tailored for smaller incidents. This will allow the SOFR to get a request into the Logistics Section quickly while the SOFR beings to tackle the chaotic issues at the beginning of an incident. A go-kit with information resources preprinted (or on an accessible storage device) and safety and detection equipment would increase the response effectiveness of the SOFR. A good Site Safety and Health plan (see below) form that the SOFR is familiar with will be a good guide/checklist to cover the safety issues of an incident and quickly develop the site safety plan. Pre-planning is critical to allow the SOFR to respond quickly to the needs of the personnel responding to an incident.

## 3100 Site Safety and Health Plans

The following plans can be used as a general guide to facilitate rapid development of site safety and health plans during spill response. They are NON-MANDATORY guidelines intended to support appropriate site-specific planning. They were developed for response personnel involved in EMERGENCY and/or POST-EMERGENCY operations and may not provide sufficient detail for long-term remedial sites.

A generic site safety and health plan is provided for oil/hazardous substance responses along with a PROPOSED ASTM STANDARD Site Safety and Health Plan for oil spill response. Both documents provide a set of attachments that should be used as needed. The generic and proposed ASTM standard site safety plans are not intended to satisfy all requirements for written procedures. A site-specific site safety and health plan must be backed up by other documents that add more detailed information, which may not be needed in the field (i.e., a site safety and health program, a respiratory protection program, or a medical monitoring program).

## 3200 ICS Compatible Site Safety and Health Plan

The Site Safety and Health Plan, ICS Form 208, is designed for use during ICS responses. It is intended to meet the requirements of the Hazardous Waste Operations and Emergency Response regulation (29 CFR Part 1910.120). The plan avoids the duplication found between many other site safety plans and certain ICS forms. It is also in a format familiar to users of ICS. Although primary designed for oil and hazardous substance incidents, the plan can be used from all hazard situations. The most up-to-date ICS compatible Site Safety and Health Plan, ICS Form 208 can be found at the USCG Homeport internet site http://homeport.uscg.mil/mycg/portal/ep/home.do, click on library, click on Incident Command System and click on Coast Guard ICS Forms (Individual).

## 3300 Development

The ICS compatible Site Safety and Health Plan was initiated at USCG Headquarters, Office of Response in 1998. Several Coast Guard personnel were involved in the development and review of the plan. The plan was then reviewed and refined by industry representatives.

# 4000 Emergency Safety and Response Plan (SSP-A)

The Emergency Safety and Response Plan provides the SOFR and ICS personnel a plan for safe guarding personnel during the initial emergency phase of the response. It is only used during the emergency phase of the response, which is defined as a situation involving as uncontrolled release/discharge. It is also intended to meet the requirements of the Hazardous Waste Operations and Emergency Response (HAZWOPER) regulation, 29 CFR Part 1910.120.

## 4100 Preparation

The SOFR or his/her designated staff starts the Emergency Site Safety and Response Plan. They initially address the hazards common to all operations involved in the response (initial site characterization). Outside support organizations must be contacted to ensure the plan is consistent with other plans (local, state, other federal plans). Form SSP-G need not be completed if this form is used. When the operation proceeds into the post-emergency phase (site stabilized and clean-up operations begun) forms SSP-B and SSP-G should be used. For large incidents, the Emergency Site Safety and Response Plan complements the Incident Action Plan. For smaller incidents, the Emergency Site Safety and Response Plan complements ICS Form 201.

## 4200 Distribution

The Emergency Safety and Response Plan is completed by the SOFR and forwarded to the Planning Section Chief. Copies are made and attached to the Assignment List(s), ICS Form 204. The Operations Section Chief, Directors, Supervisors, or Leaders get a copy of the plan. They must ensure it is available on site for all personnel to review. The SOFR is responsible for ensuring that the Emergency Site Safety and Response Plan properly addresses the hazards of the operation. The SOFR accomplishes this through on-site enforcement and feedback to the operational units.

## 4300 SSP-A Instructions

| # | Title | Instructions |
|---|---|---|
| 1 | Incident Name | Print the name assigned to the incident. |
| 2 | Date/Time Prepared | Enter date (month, day, year) prepared. |
| 3 | Operational Period | Enter the time interval for which the assignment applies. |
| 4 | Attachments | Enter attachments. Safety Data Sheets are mandatory under 1910.120. Safe Work Practices may also be attached. |
| 5 | Organization | List the personnel responsible for these positions. IC and SOFR are mandatory. |
| 6 | Physical Hazards & Protection | Check off the physical hazards at the site. Identify the major tasks involved in the response (skimming, lightering, overpacking, etc.). Check off the controls that would be used to safeguard workers from the physical hazards for each major task. |
| 7 | Chemicals | List the chemicals involved in the response. Chemicals may be listed numerically. Check off hazards, potential health effects, pathway of dispersion, and exposure route to the chemical. Numbers corresponding to the chemical may be entered into the check blocks to differentiate. Check off PPE to be used. Identify the type of PPE selected (i.e., gloves: butyl rubber). |
| 8 | Instruments | Indicate the instruments used for monitoring. List the action levels adjacent to the instruments used. Identify the chemicals being monitored. List the physical parameters of the chemicals. Use a separate form for additional chemicals monitored. |
| 9 | Decontamination | Check off the decontamination steps to be used. Numbers may be entered to indicate the preferred sequence. Identify any intervening steps necessary on the form or in a separate attachment. |
| 10 | Site Maps | Draw a rough site map. Ensure all the information listed is identified on the map. |
| 11 | Potential Emergencies | Identify any potential emergencies that may occur. If none, so state. Check off the appropriate alarms that may be used. Identify emergency prevention and evacuation procedures in the space provided or on a separate attached sheet. |
| 12 | Communications | Indicate type of site communications (phone, radio). Indicate phone numbers for frequencies for the command, tactical, and entry functions. |
| 13 | Site Security | Identify the personnel assigned. Identify security procedures in the space provided or on a separate attached sheet. Identify the equipment needed to support security operations. |
| 14 | Emergency Medical | Identify the personnel assigned. Identify emergency medical procedures in the space provided or on a separate attached sheet. Identify equipment needed to support security operations. |
| 15 | Prepared by: | Enter the name and position of the person completing the worksheet. |
| 16 | Date/time briefed | Enter the date/time document was briefed to the appropriate workers and by whom. |

# 5000 Site Safety Plan (SSP-B)

The Site Safety Plan provides the SOFR and ICS personnel a plan for safeguarding personnel during the post-emergency phase of an incident. The post-emergency phase is when the situation is stabilized and cleanup operations have begun. SSP-B is intended to meet the requirements of the HAZWOPER regulation, 29 CFR Part 1910.120.

## 5100 Preparation

The SOFR or his/her designated staff starts the Site Safety Plan. They initially address the hazards common to all operations involved in the response (initial site characterization). The plan is reproduced and, as a minimum, sent to ICS Group/Division Supervisors. They amend it according to unique job or on-scene hazards with support from the SOFR and/or his/her staff (detailed site characterization). The plan is continuously updated to address changing conditions. During the first hours of the response, where most response functions are in the emergency phase, the SOFR may choose to use the Emergency Safety and Response Plan (SSP-A) in place of the Site Safety Plan. For large incidents, the SSP-B compliments the Incident Action Plan. For smaller incidents, the SSP-B compliments ICS Form 201. The SOFR is encouraged to use the HAZWOPER Compliance Checklist (Form SSP-K) to ensure the Incident Action Plan and the 201 address the requirements and all other pertinent ICS forms (203, 205, 206, etc.) are completed.

## 5200 Distribution

The initial Site Safety Plan completed by the SOFR is forwarded to the Planning Section Chief. Copies are made and attached to the Assignments List(s), ICS Form 104. The Operations Section Chief, Directors, Supervisors, or Leaders get a copy and make on-site amendments specific to their operation. They ensure it is available on-site for all personnel to review. The SOFR provides personnel from his/her staff to assist in the detailed site characterization. The SOFR is responsible for ensuring the Site Safety Plan for each assignment properly addresses hazards of that assignment. The SOFR shall ensure completion of the Worker Acknowledgement Form (SSP-I).The SOFR accomplishes this through on site enforcement and feedback to operational units.

## 5300 SSP-B Instructions

| # | Title | Instructions |
|---|---|---|
| 1 | Incident Name | Print the name assigned to the incident. |
| 2 | Date/time Prepared | Enter date (month, day, year) prepared. |
| 3 | Operational Period | Enter the time interval for which the assignment applies. |
| 4 | Safety Officer | Enter the name of the Safety Officer and means of contact. |
| 5 | Group/Division Sup<br>Strike Team/TF Leader | The Supervisor/leader who receives this form will enter their name here. |
| 6 | Location & size of site | Enter the geographical location of the site and the approximate square area. |
| 7 | Site Accessibility | Check the block(s) if the site is accessible by land, water, air, etc. |
| 8 | For Emergency Contact | Enter the name and way to contact the individual who handles emergencies. |
| 9 | Attachments | Enter attachments. Safety Data Sheets are mandatory under 1910.120. Safe Work Practices may also be attached. |
| 10 | Job/Task Activity | Enter Job/Task & Activities, list hazards, list potential injury and health effects, check exposure routes and identify controls. If more detail is needed for controls, provided attachments. |
| 11 | Prepared by | Enter the name and position of the person completing the worksheet. |
| 12 | Briefed on _____ by | Enter the date/time the document was briefed to the appropriate workers and by whom. |

# 6000 Site Map for Site Safety Plan (SSP-C)

The Site Map for the Site Safety Plan is required by 29 CFR Part 1910.120. It provides, in one place, a visual description of the site, which can help ICS personnel locate hazards, identify evacuation routes, and places of refuge.

## 6100 Preparation

The Site Map for the Site Safety Plan can be completed by the SOFR, his/her staff, or by ICS personnel (Group Supervisors, Task Force/Strike Team Leaders) working at a site with unique and specific hazards. One or several maps may be developed, depending on the size of the incident and the uniqueness of the hazards. The key is to ensure that the workers using the map(s) can clearly identify the work zones, locations, of hazards, evacuation routes and places of refuge.

## 6200 Distribution

This form must be located with the Site Safety Plan (SSP-B). It therefore follows the same distribution route.

## 6300 SSP-C Instructions

| # | Title | Instructions |
|---|---|---|
| 1 | Incident Name | Print the name assigned to the incident. |
| 2 | Date/Time prepared | Enter date (month, day, year) prepared. |
| 3 | Operational Period | Enter the time interval for which the assignments applies. |
| 4 | Safety Officer | Enter Safety Officer name and means of contact. |
| 5 | Supervisor/Leader | The Supervisor/Leader who receives this form will enter their name here. |
| 6 | Location & size of site | Enter the geographical location of the site and the approximate square area. |
| 7 | Site Accessibility | Check the block(s) if the site is accessible by land, water, air, etc. |
| 8 | For Emergency Contact | Enter the name and way to contact the individual who handles emergencies. |
| 9 | Include | Ensure the map includes the listed items provided in this block. |
| 10 | Prepared by | Enter the name and position of the person completing the worksheet. |
| 11 | Briefed on _____ by | Enter the date/time the document was briefed to the appropriate workers and by whom. |

# 7000 Emergency Response Plan (ICS Form 208D)

The Emergency Response Plan provides information on measures to be taken in the event of an emergency. It is used in conjunction with the Site Safety Plan (Form SSP-B). It is required by 29 CFR Part 1910.120.

## 7100 Preparation

The SOFR, his/her staff member if the Site Supervisor/Leader prepares the Emergency Response Plan. A copy of the Medical Plan (ICS Form 206) shall always be attached to this form.

## 7200 Distribution

This form must be located with the Site Safety Plan (SSP-B). It therefore follows the same distribution.

## 7300 ICS Form 208D Instructions

| # | Title | Instructions |
|---|---|---|
| 1 | Incident Name | Print the name assigned to the incident. |
| 2 | Date/Time Prepared | Enter date (month, day, year) prepared. |
| 3 | Operational Period | Enter the time interval for which the assignment applies. |
| 4 | Safety Officer | Enter the name of the Safety Officer and means of contact. |
| 5 | Supervisors/Leader | The Supervisor/Leader who receives this form will enter their name here. |
| 6 | Location & size of site | Enter the geographical location of the site and the approximate square area. |
| 7 | Emergency Contact | Enter the name and way to contact the individual who handles emergencies. |
| 8 | Attachments | Enter attachments. ICS Form 206 must be included. |
| 9 | Emergency Alarm | Enter a description of the sound of the emergency alarm and its location. |
| 10 | Backup Alarm | Enter a description of the sound of the emergency alarm and its location. |
| 11 | Emergency Hand Signals | Enter the emergency hand signals to be used. |
| 12 | Emergency Personal Protective Equipment | Enter the emergency PPE that may be needed in the event of an emergency. |
| 13 | Emergency Notification Procedures | Enter the procedures for notifying the appropriate personnel and organizations in the event of an emergency. |
| 14 | Places of Refuge | Enter by name the place of refuge personnel can go to in the event of an emergency. |
| 15 | Emergency Decon & Evacuation Steps | Enter emergency decontamination steps and evacuation procedures. |
| 16 | Site Security Measures | Enter site security measures needed for emergencies. |
| 17 | Prepared by | Enter the name and position of the person completing the worksheet. |
| 18 | Briefed on _____ by | Enter the date/time the document was briefed to the appropriate workers and by whom. |

# 8000 Daily Air Monitoring Log (SSP-E)

The Daily Air Monitoring Log provides documentation of air monitoring conducted during an incident. The log is supplement to the Site Safety Plan (SSP-B). It is only required when performing air monitoring operations. The information used from the log can help update the Site Safety Plan.

## 8100 Preparation

Persons conducting monitoring complete the Daily Air Monitoring Log. Normally these are air-monitoring units under the Site Safety Officer. If there is a decision not to monitor during a spill, the reasons must be available on site, readily available and briefed to all impacted ICS personnel.

## 8200 SSP-E Instructions

| # | Title | Instructions |
|---|---|---|
| 1 | Incident Name | Print the name assigned to the incident. |
| 2 | Date/Time Prepared | Enter date (month, day, year) prepared. |
| 3 | Operational Period | Enter the time interval for which the assignment applies. |
| 4 | Safety Officer | Enter the name of the Safety Officer and means of contact. |
| 5 | Location & size of site | Enter the geographical location of the site and the approximate square area. |
| 6 | Hazards of concern | Enter the hazards being monitored. |
| 7 | Action Levels | Enter the hazards being monitored. |
| 8 | Weather | Enter weather information. Ensure units of measure are listed. Include wind direction and wind speed. |
| 9 | Air Monitoring Data | Enter the instruments type and number, persons monitoring, results with appropriate units, location of reading, date and time of reading, interferences and comments. Detection limits of the instruments used should be captured in 9.g, interferences and comments. |
| 10 | Safety Officer Review | The Safety Officer must review and sign the form. |

# 9000 Personal Protective Equipment (SSP-F)

The Personal Protective Equipment (PPE) Form is a list of PPE to be used in operations. The listing of PPE is required by 29 CFR Part 1910.120.

## 9100 Preparation

The PPE form is completed by the SOFR, or his/her staff. PPE common to all ICS Operations personnel is addressed first. Jobs with unique PPE requirements (i.e. fall protection) are addressed next. When the form is delivered on site, the ICS Director, Supervisor, or Leader may amend the list to ensure personnel are adequately protected from job hazards. It must be completed prior to the onset of any operation, unless addressed elsewhere by Standard Operating Procedures.

## 9200 Distribution

This form must be located with the Site Safety Plan (SSP-B). It therefore follows the same distribution.

## 9300 SSP-F Instructions

| # | Title | Instructions |
|---|---|---|
| 1 | Incident Name | Print the name assigned to the incident |
| 2 | Date/Time Prepared | Enter date (month, day, year) prepared |
| 3 | Operational Period | Enter the time interval for which the assignment applies |
| 4 | Safety Officer | Enter the name of the Safety Officer and means of contact |
| 5 | Supervisor/Leader | The Supervisor/Leader who receives this form will enter their name here |
| 6 | Location & size of site | Enter the geographical location of the site and the approximate square area |
| 7 | Hazard(s) Addressed | Enter the hazards that need to be safeguarded against |
| 8 | For emergencies Contact | Enter the name and way to contact the individual who handles emergencies |
| 9 | Equipment | List the equipment needed to address the hazards. If pre-designed Safe Work Practices are used, indicate here and attach form |
| 10 | References consulted | List the references used in making the selection of PPE |
| 11 | Inspection procedures | Enter the procedures for inspecting PPE prior to donning. If pre-designed Safe Work Practices are used, indicate here and attach to form |
| 12 | Donning Procedures | Enter the procedures for putting on the PPE. If pre-designed Safe Work Practices are used, indicate here and attach to form |
| 13 | Doffing Procedures | Enter the information for removing the PPE. Of pre-designed Safe Work Practices are used, indicate here and attach to form |
| 14 | Limitations and Precautions | List the limitations and precautions when using PPE. Include the maximum time using PPE. Heat Stress concerns, psychomotor skill detraction and other factors |
| 15 | Prepared by | Enter the name as position of the person completing the worksheet |
| 16 | Briefed on _____ by | Enter the date/time the document was briefed to the appropriate workers and by whom |

# 10000 Decontamination Form (SSP-G)

The Decontamination Form provides information on how workers can avoid contamination and how to get decontaminated. It is a supplemental form to the Site Safety Plan.

## 10100 Preparation

The Decontamination Form can be completed by the SOFR, and member of his/her staff, or by the Group/Division Supervisor, Task Force/Strike Team Leader on the site.

## 10200 Distribution

This form must be located with the Site Safety Plan (SSP-B). It therefore follows the same distribution.

## 10300 SSP-G Instructions

| # | Title | Instructions |
|---|---|---|
| 1 | Incident Name | Print the name assigned to the incident |
| 2 | Date/Time Prepared | Enter date (month, day, year) prepared |
| 3 | Operational Period | Enter the time interval for which the assignment applies |
| 4 | Safety Officer | Enter the Safety Officer name and contact info |
| 5 | Supervisor/Leader | The Supervisor/Leader who receives this form will enter their name here |
| 6 | Location & size of site | Enter the geographical location of the site and the approximate square area |
| 7 | For emergencies Contact | Enter the name and way to contact the individual who handles emergencies |
| 8 | Hazard(s) Addressed | Enter the hazards that need to be safeguarded against |
| 9 | Equipment | List the equipment needed to address the hazards. If pre-designed Safe Work Practices are used, indicate here and attach form |
| 10 | References consulted | List the references used in selecting PPE |
| 11 | Contamination Avoidance Practices | Enter procedures for personnel to avoid contamination. If pre-designed Safe Work Practices are used, indicate there and attach to form |
| 12 | Decon Diagram | Draw a diagram for the decontamination operation. If pre-designed Safe Work Practices are used, indicate here and attach to form |
| 13 | Decon Steps | List the decontamination steps |
| 14 | Prepared by | Enter the name and position of the person completing the worksheet |
| 15 | Briefed on ____ by | Enter the date/time the document was briefed to the appropriate workers and by whom |

# 11000 Site Safety Enforcement Log (SSP-H)

The Site Safety Plan Enforcement Log is used to help enforce safety during an incident.

## 11100 Preparation

The SOFR and/or his/her staff complete the Site Safety Plan Enforcement Log. The log is completed as Safety personnel are on scene reviewing the site. It should be completed at a minimum once per day, depending on the size of the incident. Enough should be completed to ensure that site safety is being adequately enforced.

## 11200 Distribution

The Site Safety Enforcement Log, when completed, is delivered to the SOFR. The SOFR can use the form to amend the Site Safety Plan (SSP-A or B).

## 11300 SSP-H Instructions

| # | Title | Instructions |
|---|---|---|
| 1 | Incident Name | Print the name assigned to the incident |
| 2 | Date/Time Prepared | Enter date (month, day, year) prepared |
| 3 | Operational Period | Enter the time interval for which the assignment applies |
| 4 | Safety Officer | Enter Safety Officer name and contact info |
| 5 | Supervisor/Leader | The Supervisor/Leader who receives this form will enter their name here |
| 6 | Emergencies Contact | Enter name and way to contact the individual who handles emergencies |
| 7 | Attachment | List any attached supporting documentation |
| 8 | Job/Task Activity | Enter only those Job Task/activated for which a deficiency is noted |
| 8a | Hazards | Enter the hazards not being sufficiently addressed |
| 8b | Deficiency | Enter the deficiency |
| 8c | Action Taken | Enter corrective action taken to address deficiency |
| 8d | Safety Plan Amended? | Enter whether the onsite safety plan was amended |
| 8e | Signature of Supervisor/Leader | Ensure the Supervisor/Leader signs the form to acknowledge the deficiency |
| 9 | Prepared by | Enter the name and position of the person completing the worksheet |
| 10 | Briefed on____ by | Enter the date/time the document was briefed to the appropriate workers and by whom |

# 12000 Worker Acknowledgement Form (SSP-I)

The Worker Acknowledgement form is used to document workers who have received safety briefings.

## 12100 Preparation

Those personnel responsible for conduction safety briefings complete this form initially. Once the briefings are completed, workers who were briefed print their name, sign, date, and indicate the time of the briefing.

## 12200 Distribution

This form is returned to the SOFR or designated representative at the end of each operational period.

## 12300 SSP-I Instructions

| # | Title | Instructions |
|---|---|---|
| 1 | Incident Name | Print the name assigned to the incident |
| 2 | Site Location | Indicate the location where the briefings are held |
| 3 | Attachment | Indicate any attachments used as part of the briefings |
| 4 | Type of briefing | Check the block next to the type of briefing |
| 5 | Presented by | Enter the name of the person conducting the briefing |
| 6 | Date | Enter the date of the briefing |
| 7 | Time | Enter the time of the briefing |
| 8 | Worker Name | Workers receiving the briefing print their name, sign, date, and enter the time they acknowledge the briefing |

# 13000 Emergency Safety and Response Plan Compliance Checklist (SSP-J)

The purpose of the Emergency Safety and Response Plan 1910.120 Compliance Checklist is to ensure that incident response operations are in compliance with 29 CFR Part 1910.120, HAZWOPER. It also identifies how from SSP-J can be used to satisfy the HAZWOPER requirements. This checklist is an optional form.

## 13100 Preparation

The Emergency Safety and Response Compliance Checklist is completed by the SOFR or his/her staff as frequent as necessary whenever the SOFR wants to ensure regulatory compliance. It is best used in conjunction with the Site Safety Plan Enforcement Log (SSP-H). The Site Safety Plan Forms (A-G) best meet some of the requirements. The Incident Action Plan is suited to address other requirements, and the SOFR should ensure the IAP addresses them. Other requirements are performance based and are best evaluated on scene by the SOFR or his/her staff.

## 13200 Distribution

The SOFR should maintain the Emergency Safety and Response Plan 1910.120 Compliance Checklist.

## 13300 SSP-J Instructions

| # | Title | Instructions |
|---|---|---|
| 1 | Incident Name | Print the name assigned to the incident |
| 2 | Date/Time prepared | Enter date (month, day, year) prepared |
| 3 | Operational Period | Enter the time interval for which the assignment applies |
| 4 | Supervisor/Leader | The Supervisor/Leader who receives this form will enter their name here |
| 5 | Location of site | Enter site location |
| 6 | Cites | These are the regulatory cites within 1910.120. The major headings are highlighted in bold. Informational cites or cites that are duplicative are not included |
| 7 | Requirements | This lists the requirements in a question format. Some require documentation or action |
| 8 | ICS Form | List this requirements covered in SSP-A |
| 9 | Check Block | Enter the check if the site satisfies the requirement |
| 10 | Comments | This provides additional information on the requirement. The user may also enter comments |
| 11 | Prepared by | Enter the name and position of the person completing the worksheet |

# 14000 HAZWOPER 1910.120 Compliance Checklist (SSP-K)

The purpose of the HAZWOPER 1910.120 Compliance Checklist is to ensure that incident response operations are in compliance with 29 CFR Part 1910.120, HAZWOPER. It also identified how other ICS forms can be used to satisfy the HAZWOPER requirements. This is an optional form.

## 14100 Preparation

The HAZWOPER 1910.120 Compliance Checklist is completed by the SOFR or his/her staff as frequently as necessary whenever the SOFR wants to ensure regulatory compliance. It is best used in conjunction with the Site Safety Plan Enforcement Log (SSP_H). The Site Safety Plan Forms (A-G) best meet some of the requirements. The Incident Action Plan is suited to address other requirements, and the SOFR should ensure the IAP addresses them. Other requirements are performance based and are best evaluated on scene by the SOFR or his/her staff.

## 14200 Distribution

The HAZWOPER 1910.120 Compliance Checklist should be maintained by the SOFR.

## 14300 SSP-K Instructions

| # | Title | Instructions |
|---|---|---|
| 1 | Incident Name | Print the name assigned to the incident |
| 2 | Date/Time prepared | Enter date (month, day, year) prepared |
| 3 | Operational Period | Enter the time interval for which the assignment applies |
| 4 | Supervisor/Leader | The Supervisor/Leader who receives this form will enter their name here |
| 5 | Location of site | Enter site location |
| 6 | Cites | These are the regulatory cites within 1910.120. The major headings are highlighted in bold. Informational cites or cites that are duplicative are not included |
| 7 | Requirements | This lists the requirements in a question format. Some require documentation or some form of action. |
| 8 | ICS Form | List those ICS Forms that cover the requirement. **IAP designations mean it should be covered in the IAP, it does not guarantee it is covered. The SOFR must ensure this** |
| 9 | Check Block | Enter the check if the site satisfies the requirement |
| 10 | Comments | This provides additional information on the requirement. The user may also enter comments |
| 11 | Prepared by | Enter the name and position of the person completing the worksheet |

# 15000 HAZWOPER 1910.120 Drum Compliance Checklist (SSP-L)

The purpose of the HAZWOPER 1910.120 Drum Compliance Checklist is to ensure that incident response operations are in compliance with 29 CFR Part 1910.120, HAWOPER whenever drums are encountered during an incident. This is an optional form.

## 15100 Preparation

The HAZWOPER 1910.120 Drum Compliance Checklist is completed by the SOFR of his/her staff as frequently as necessary whenever the SOFR wants to ensure regulatory compliance. It is best used in conjunction with the Site Safety Plan Enforcement Log (SSP-H). This Site Safety Plan Forms (A-G) best meet some of the requirements. Other requirements are performance based and are best evaluated on scene by the SOFR or his/her staff.

## 15200 Distribution

The HAZWOPER 1910.120 Drum Compliance Checklist should be maintained by the SOFR.

## 15300 SSP-L Instructions

| # | Title | Instructions |
|---|---|---|
| 1 | Incident Name | Print the name assigned to the incident |
| 2 | Date/Time prepared | Enter date (month, day, year) prepared |
| 3 | Operational Period | Enter the time interval for which the assignment applies |
| 4 | Safety Officer | Name of the SOFR and contact info |
| 5 | Supervisor/Leader | The Supervisor/Leader who receives this form will enter their name here |
| 6 | Location & Size of the site | Enter the geographical location of the site and the approximate square area |
| 7 | Emergencies Contact | Enter the name and way to contact the individual who handles emergencies |
| 8 | Note | Tanks and vaults should also be treated in the same manner as described in the checklist (1910.120(j)(9) |
| 9 | Cites | These are the regulatory cites within 1910.120. The major headings are highlighted in bold. Informational cites or cites that are duplicative are not included |
| 10 | Requirements | This lists the requirements in a question format. Some require documentation or some form of action |
| 11 | Check Block | Enter the check if the site satisfies the requirement |
| 12 | Comments | This provides additional information on the requirement. The user may also enter comments |
| 13 | Prepared by | Enter the name and position of the person completing the worksheet |

# 16000 Site Safety Plan Attachments (SSP-ATTACH #)

The Site Safety Plan attachments provide ready-made safe work practices for the SOFR and ICS Personnel. They are optional documents designed to assist the SOFR in communicating and enforcing control of safety hazards. They were derived from the U.S. Coast Guard's National Strike Force's Guide for Developing Oil Spill Site Safety Plans (NSFCCINST N16465.2).

## 16100 Preparation

The SSP-Attachments require little to no preparation. Some of them have blank sections (due to information changing) that are required to be filled in by the SOFR or his/her staff. The SOFR is encouraged to use the format presented by the attachments for developing his/her own additional safe work practices.

## 16200 Distribution

These forms must be located with the Site Safety Plan (SSP-A/B); therefore, following the same distribution.

# Florida Keys
# Area Contingency Plan
# (FKACP)

# Public Health and Safety: Environmental Health Support Guidance

# Annex DD

May 2022

## Record of Changes

| Change Number | Change Description | Section Number | Change Date | Name |
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| 1 | | | | |
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# 1000 Introduction

When a disaster event occurs within the environment, to include a significant oil discharge, chemical/hazardous substance release, explosion or fire that impacts the health of the community or has the potential to impact the health of the community from contaminates, it is critical that Unified Command identify and incorporate the local health authority within the command structure.

The Florida Department of Health is an integrated / unified health department, including the State Health Office (Tallahassee) and the 67 county health departments. The Florida Department of Health Environmental Health Response Plan establishes the internal framework and operational system to assure that the residents of Florida are protected from environmental health risks during times of emergency or disaster. This plan incorporates the National Incident Management System (NIMS) principles and utilizes the Incident Command System (ICS) in all response activities. The Florida Department of Health takes an "all hazards" approach to emergency preparedness planning. Rather than attempting to address every possible public health threat or hazard in a separate plan, this approach looks at ways to address the effects common to the risks faced in Florida employing a general All Hazards Response Plan. Plans to address specific issues and that require deviations from, or additions to the All-Hazards Response Plan, are included as hazard specific annexes to the general Emergency Operation plan of each county.

During the initial emergency phase of a pollution incident, the Federal On-Scene Coordinator (FOSC) or designated representative should contact the **Poison Control Center at 800-222-1222** to discuss/receive initial environmental health support. The FOSC should provide the Poison Control Center (PCC) with any information related to the event (hazard information, product spilled, quantity spilled, Safety Data Sheet, certificate of analysis, impacted media, location of event, occupational impacts, community impacts). When the PCC is actively engaged, they can produce a Situation Report on calls received and guidance to the community to include hospitals, the media, clinicians and health authorities. The Centers for Disease Control and Prevention (CDC) recognizes the Poison Control Centers as a public health authority. **Note:** 911 call centers transfer any environmental health calls directly to the Poison Control Center.

Please see below links to local and state health authorities for LA.

- **Link to local health authorities for Florida Counties: County Health Department Leadership | Florida Department of Health (floridahealth.gov)**
- **State health authority for Florida: Leadership | Florida Department of Health (floridahealth.gov)**

The Centers for Disease Control and Prevention (CDC) and the Agency for Toxic Substances and Disease Registry (ATSDR) headquarters are in Atlanta, GA. The two Centers within the CDC that would be most closely involved in oil pollution events would be the National Center for Environmental Health (NCEH) and the National Institute for Occupational Safety and Health (NIOSH). NIOSH may also become involved in an incident at the request of the Occupational Safety and Health Administration (OSHA).

The ATSDR has Regional Offices located within each of the 10 EPA Regional Offices. Staffing consists of a Regional Director and several Regional Representatives. The ATSDR is the lead federal health agency for chemical spills. The ATSDR can provide consultation to the FOSC (EPA/U.S. Coast Guard) on-site, by phone or through email. Because the ATSDR has relationships with the State Health Departments, they can support inclusion within Unified Command. The ATSDR can provide technical review of data and coordination and collaboration with both the State health agencies and local health authority. The ATSDR can also directly collaborate with the Poison Control Centers.

Both CDC and ATSDR can coordinate with other federal health agencies mentioned in the National Contingency Plan (40 CFR 300.175) as necessary. Both agencies can provide environmental health support to the FOSC during an emergency response incident to include:

1) Technical assistance in the environmental health and toxicology areas of the response and recovery phase of the incident
2) Analysis/evaluation of the human health implications of environmental data
3) Public Health Messaging
4) Coordination with Poison Control Centers
5) Coordination with State, Local, Territorial, and Tribal (SLTT) public health authorities
6) Information for healthcare providers on the substances involved
7) Assistance with response worker health and safety issues
8) In person press conference support

# 2000 Notifications

- Primary / Initial: Poison Control Center at 800-222-1222
- Local Health Authority: Robert Eadie, Administrator for County Health Department at (O) 305-676-3821or (M) 305-797-5561
- State Health Authority: Department of Environmental Protection's Office of Emergency Response and/also State Watch Office

# 3000 Federal support under the NCP

The CDC Emergency Operations Center is staffed 24/7 and can be reached at:
770-488-7100 or Email: eocreport@cdc.gov

- Primary agency for oil (CDC/NCEH)
- Primary agency for hazardous substances (ATSDR)

Ask the CDC Watch Stander to connect you with the ATSDR or NCEH Duty Officer.

Although environmental health support can be provided remotely, the USCG FOSC has the option to request on site CDC and/or ATSDR presence. This request is formalized via a Pollution Removal Funding Authorization (PRFA). This option was most recently executed during the Bayport Channel Collision incident in Sector Houston-Galveston in May 2019. The primary CDC team role included inviting the local health authority, State Health Authority, review of environmental data, public messaging, and collaboration with the Poison Control Center.

# 4000 State Specific Notes

## 4100 Florida

The State Emergency Operations Center (SEOC), located in Tallahassee, serves as the central clearinghouse for disaster-related information, and requests for deployment of assistance. The All-Hazards Incident Management Team (AHIMT) serves as the forward coordinating element for the State Emergency Response Team (SERT) and the State Coordinating Officer (SCO).

AHIMTs do not typically assume operational control of an incident; however, they provide situational awareness and operational planning to the SERT and the SCO by incorporating information collected from the State Emergency Operations Center (SEOC), County EOCs, local agencies. The AHIMT will assist in the coordination of necessary logistical support to the SCO and SERT for forward deployment.

Furthermore, the AHIMT, in coordination with SERT Liaisons, may be tasked to assist the State Emergency Response Team Chief with other missions as assigned by the SEOC. Missions that could be assigned to an AHIMT include EOC Augmentation, Base Camp Management, Recovery Operations, etc.

The FDOH Environmental Health response would be directed at those facilities under its jurisdiction as well as food hygiene, drinking water safety, and sanitation. The FDOH Environmental Health response will largely be in support of other agencies. Hazardous Materials response is outlined in each County Comprehensive Emergency Management Plan (CEMP)'s Annex. Hazardous Materials response is directed by ESF 10. The primary response agency is the County Fire Marshall's Office and supported by ESF 8 -Health and Medical—as necessary. The FDOH is a support agency in the response to a Hazardous Materials event.

The Department of Business and Professional Regulation (DBPR) will be the lead agency in an emergency affecting hotels and restaurants. The Department of Environmental Protection will be the lead agency in an emergency with potential environmental impacts. The Department of Agriculture and Consumer Services will be the lead agency in an emergency affecting agriculture or livestock. Each FDOH county will respond at the request of any of these State agencies.

# Florida Keys
# Area Contingency Plan
# (FKACP)

# Public Health and Safety:
# Water Sampling Protocols

# Annex FF

May 2022

## Record of Changes

| Change Number | Change Description | Section Number | Change Date | Name |
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# 1000 Public Health and Safety: Water Sampling Protocols Introduction

Through the collection and analysis of water samples, responders can uncover valuable data needed to inform decisions related to response tactic deployment, determining cleanup endpoints, waterway closures, recreational and consumption advisories, and fisheries management. During a response, water sampling may be necessary to answer a variety of questions. For example:

- What is the source of the spill?
- Is oil/hazardous substance detected in the surface water samples?
- Is the water body of acceptable quality for recreation, fish consumption, irrigation, or a designated beneficial use?
- Is oil/hazardous substance migrating?
- Is water quality improving or worsening?
- Is sediment and tissue sampling required?

This document contains guidance and plan templates to standardize the process to collect, analyze, and disseminate sampling results that can support decision-making during a response. Sampling guidance throughout the plan only covers surface water. All sampling fieldwork is to be conducted in accordance with the site safety plan developed for the response.

**Note**: The Central Texas Coastal Area Committee developed this document. The formatting of the Water Sampling Plan is styled after the previously published SETX and SWLA Area Contingency Plan (prior to 2020); reformatting will occur during future updates.

The following is a link to the Public Health and Safety: Water Sampling Protocols, Annex FF.

# Florida Keys
# Area Contingency Plan
# (FKACP)

## Response Protocols: Disposal

# Annex GG

May 2022

## Record of Changes

| Change Number | Change Description | Section Number | Change Date | Name |
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# 4001List of Tables



# 4002

# 40031000 Introduction

## 1100 Purpose

The purpose of this policy is to provide guidance for making a waste determination for proper disposal of materials (i.e. sorbents, solidifiers, etc.) and debris (i.e., Personal Protective Equipment (PPE), rags, soil, etc.) contaminated by hydrocarbons. This guidance describes the chronology of activities necessary for decision making for coordinating proper disposal of materials contaminated by hydrocarbons in accordance with all local, state and federal regulations.

It should be noted that waste determinations are made by the generator of the waste such that the generator may: 1) manage the waste appropriately and legally (in accordance with all local, state and federal regulations); and 2*)* provide valid proof (i.e., analytical and/or SDS**)** to the disposal facility regarding the matrix/constituents of the waste generated such that the disposal facility may make a determination as to whether they will accept the waste in compliance with their operating permit(s).

## 1200 Definitions

**Discharge or hazardous waste discharge:** The accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of hazardous waste into or on any land or water.
**Disposal:** The discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.
**Disposal facility:** A facility or part of a facility at which hazardous waste is intentionally placed into or on any land or water, and at which waste will remain after closure. The term disposal facility does not include a corrective action management unit into which remediation wastes are placed.
**Exploration and Production Waste (E&P Waste):** drilling wastes, salt water, and other wastes associated with the exploration, development, or production of crude oil or natural gas wells and which is not regulated by the provisions of the Louisiana Hazardous Waste Regulations and the Federal Resource Conservation and Recovery Act, as amended. (LAC 43:XIX.501).
**Hazardous Waste:** See 40 CFR 261.3
**Incinerator:** Any enclosed device that:

- Uses controlled flame combustion and neither meets the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit.
- Meets the definition of infrared incinerator or plasma arc incinerator.

**Industrial Solid Waste:** solid waste generated by a manufacturing, industrial, or mining process, or that is contaminated by solid waste generated by such a process. This term does not include hazardous waste regulated under the Louisiana hazardous waste regulations or under federal law, or waste that is subject to regulation under the LDNR Office of Conservation's Statewide Order No. 29-B or by other agencies (LAC 33:VII.115).
**Landfill:** A disposal facility or part of a facility where hazardous waste is placed in or on land and which is not a pile, a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit.

**Oil:** Oil of any kind or in any form, including, but not limited to: fats, oils, or greases of animal, fish, or marine mammal origin; vegetable oils, including oils from seeds, nuts, fruits, or kernels; and, other oils and greases, including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes other than dredged spoil.
**Petroleum oil:** Petroleum in any form, including but not limited to crude oil, fuel oil, mineral oil, sludge, oil refuse, and refined products.
**Solid Waste:** See 40 CFR 261.2
**Solidifier:** Product composed of dry high molecular weight polymers that have a porous matrix and large oleophilic surface area which form a physical bond with oil.
**Sorbent:** An insoluble material or mixture of materials used to recover liquids through the mechanisms of absorption or adsorption, or both.
**Organic Compounds:** Include, but are not limited to: peat moss; straw; cellulose fibers; cork; corn cobs; chicken, duck or other bird feathers, etc.
**Mineral Compounds:** Include, but are not limited to: volcanic ash, perlite, vermiculite, zeolite, etc.
**Synthetics Products:** Include, but are not limited to: polypropylene, polyethylene, polyurethane, polyester, etc.
**Type I Facility:** a facility used for disposing of industrial solid wastes (e.g., a landfill, surface impoundment, or land farm). (LAC 33:VII.115)

# 40042000 Waste Determination for Disposal Coordination

The Generator and/or Responsible Party (RP) are responsible for the characterization and classification of the waste stream. In addition, it is up to the discretion and acceptance criteria (i.e. state issued permit & operating procedures) of the disposal facility with respect to waste disposal. In determining a waste stream's classification, a generator may use *process knowledge* and/or *analytical testing* by approved EPA methods (i.e. SW-846).

Process knowledge is applying knowledge of the hazardous characteristics of the waste in light of the materials or processes used. For example, a safety data sheet (SDS) may indicate that a material used in a process contains no hazardous constituents or exhibits no hazardous characteristic. The waste may be determined non-hazardous if the process itself contributes no hazardous constituents and does not result in the waste exhibiting a hazardous characteristic.
Analytical testing is information about a waste provided from laboratory analysis. Waste classification must be properly documented in a written and/or electronically stored format that is reasonably accessible and easily reproducible. The first step in classifying your waste is referred to as "making a *hazardous waste determination*."

The waste determination will determine how and where (e.g., landfill, incinerator, etc.) the waste will be properly disposed. A hazardous waste determination is made based on the following questions:

- Is the waste a "solid waste?" Does it meet the regulatory definition of a "solid waste" in accordance with 40 CFR §261?
- Is the waste a listed hazardous waste in accordance with 40 CFR §261?
- Does the waste exhibit any of four (4) characteristics: ignitability, corrosiveness, reactivity, or toxicity?
- Is the waste toxic?
- Is it a mixture?

If a hazardous waste and a non-hazardous waste are mixes, the resulting mixture may inherit the hazardous classification. Mixing in any amount of a listed waste will cause the mixture to be considered hazardous. Mixing in a characteristic waste will cause the mixture to become hazardous only if the mixture itself exhibits the characteristic.

## 2100 Listed Hazardous Waste Determination

The EPA lists some 400 hazardous wastes. Descriptions of listed waste are found in 40 CFR Part 261, Subpart D, Sections 261.31–33. These wastes are often referred to as follows:

- "F" listed waste (waste from nonspecific sources, Section 261.31)
  - The first five F listed categories, F001-F005, cover a range of solvents used in a variety of applications.
- "K" listed waste (wastes from specific sources, Section 261.32)
- "P" listed waste (unused acutely hazardous off-specification materials as well as container residues and spill residues of these materials, Section 261.33)
  - There are about 239 different "acutely toxic" substances listed under about 135 different waste codes.
- "U" listed waste (unused toxic hazardous off-specification materials as well as container residues and spill residues of these materials, Section 261.33).
  - There are about 472 distinct materials listed under about 247 different waste codes.

### 2101 Characteristic Hazardous Waste Determination.

Wastes may be hazardous if they display any of four characteristics: ignitability, corrosiveness, reactivity, or toxicity.

Ignitability (D001) Wastes that are hazardous because they may ignite include the following:

- Liquid wastes (other than those aqueous waste containing less than 24 percent alcohol by volume) that have a flash point less than 60°C (140°F). (The test method is the Pensky-Martens closed cup tester, using the test method specified in ASTM Standard D-93-79 or D-93-80, or a Setaflash closed cup tester, using the test method specified in ASTM Standard D-3278-78.)
- Non-liquid wastes that, under standard temperature and pressure, are capable of causing fire through friction, absorption of moisture, or spontaneous chemical changes and, when ignited, burn so vigorously and persistently that they create a hazard.
- Wastes that meet the definition of an ignitable compressed gas (see 49 CFR Section 173.300).
- Wastes that meet the definition of an oxidizer (see 49 CFR Section 173.151).
- Corrosiveness (D002) Wastes that are hazardous because they are corrosive include the following:

- Aqueous wastes with a pH of 2 units or below or of 12.5 units or above;
- A liquid wastes that corrode steel at a rate greater than 6.35 mm (0.250 inches) per year.
- Reactivity (D003) A waste is considered reactive if it meets any of the following conditions:
- It is capable of detonation or explosive decomposition or reaction at standard temperature and pressure,
- If subjected to a strong ignition source, or if heated under confinement.
- When mixed with water, it is potentially explosive, reacts violently, or generates toxic gases or vapors.
- If a cyanide or sulfide-bearing waste is exposed to pH conditions between 2 and 12.5, it can generate enough toxic gases, vapors, or fumes to present a danger to human health or the environment.
- If a waste generates 250 ppm or more of reactive cyanides or 500 ppm or more of reactive sulfides, it is considered a reactive waste. (It should be noted that these levels of reactive compounds are just guidance. Each waste must be evaluated for reactivity on a case-by-case basis).
- It is normally unstable and readily undergoes violent change without detonating.
- It is a forbidden explosive (as defined in 49 CFR 173.51, or a Class A explosive as defined in 49 CFR 173.53).
- It is a Class B explosive (see 49 CFR Section 173.88).

Toxicity (D004-D043) A waste is toxic if the toxicity characteristic leaching procedure (TCLP) shows that a representative sample from the waste contains one or more constituents at or above the levels listed in Table 1. The TCLP is described in EPA Method 1311 (SW-846).

For certain wastes, you can test for total constituent content and apply the "Rule of Twenty" (apply the 20-fold dilution factor inherent in the TCLP method) to determine whether a sample has to be tested using the TCLP method. The TCLP test method is generally more expensive than the test required determining Total constituent concentrations. A TCLP test is not required if total analysis demonstrates that contaminants are not present or are present in such low concentrations they could not possibly exceed the toxicity regulatory limits. The assumption in the "Rule of Twenty" is that all of the contaminant of concern is dissolved in the extraction fluid, which is then analyzed. Since this calculation assumes a 100% extraction efficiency of the TCLP, it represents a conservative assumption that the waste is not TC hazardous. Therefore, if the analytical total concentration of a constituent in a solid is "x," and "x" divided by 20 is still less than the regulatory TCLP concentration, then the solid can be assumed not to fail the TCLP test and not to exhibit the hazardous characteristic of toxicity. Note that this “rule” will not work for any waste that has greater than or equal to 0.5% liquids. This calculation can only be used for materials that are in a solid form since liquids themselves (i.e., wastes containing less than 0.5% dry solid material) are defined as the TCLP extract; hence, the 20-fold dilution factor calculation is not relevant. Therefore, this procedure is acceptable for soils and other wastes in a dry, solid form.

For the purpose of this guidance document, analytical testing should be utilized for disposal coordination with respect to spent materials impacted with hydrocarbons. Please note that it is up to the discretion of the disposal facility to accept the waste based on information provided regarding the waste. Once waste materials have been properly recovered, a representative sample of the waste should be obtained for analytical testing by an accredited environmental laboratory. Material Safety Data Sheets (MSDS) for the material released may be utilized for waste disposal

profiling if the disposal facility allows, however, sampling provides a better representation of the waste stream.

**2101.1 Analytical Testing.**
Analytical testing should be conducted as follows:
**Diesel fuel:**

- Total Petroleum Hydrocarbons (TPH)
- Total Lead (Pb). Note that TCLP Pb may be required for acceptance by the landfill. See "Rule of Twenty" reference above.
- Benzene, Toluene, Ethylbenzene, Xylene (BTEX)

**Unleaded fuel:**

- Total Petroleum Hydrocarbons (TPH)
- Total Lead (Pb). Note that TCLP Pb may be required for acceptance by the landfill. See "Rule of Twenty" reference above.
- Benzene, Toluene, Ethylbenzene, Xylene (BTEX)

**Used Oil:**

- Total Petroleum Hydrocarbons (TPH)
- Total RCRA Metals
- Benzene, Toluene, Ethylbenzene, Xylene (BTEX)
- TOX

**Virgin Oil impacted:**

- Total Petroleum Hydrocarbons (TPH)
- Total Lead (Pb). Note that TCLP Pb may be required for acceptance by the landfill. See "Rule of Twenty" reference above.
- Benzene, Toluene, Ethylbenzene, Xylene (BTEX)

**Crude Oil impacted:**

- Total Petroleum Hydrocarbons (TPH)
    - Total Lead (Pb). Note that TCLP Pb may be required for acceptance by the landfill. See "Rule of Twenty" reference above.
- Benzene, Toluene, Ethylbenzene, Xylene (BTEX)

Once analytical results have been reported and the waste determination made, a waste profile will be required to be completed and submitted to the designated disposal facility. The waste profile is specific to each disposal facility. Therefore, contact the disposal facility to obtain a copy of their waste profile form. Analytical documentation and/or SDSs will be required to be submitted with the waste profile before review and approval by the disposal facility. Please note that independent waste disposal facilities (i.e. landfills, incinerators, etc.) have different acceptance criteria for wastes as prescribed in their permits.

For the sake of reference, the below is a list of Maximum Allowable Levels which differentiate between hazardous constituent and non-hazardous constituents. If analytical methods determine that the analyzed levels are at or above these listed levels, then the waste is considered hazardous and will maintain the waste code associated with the waste.

**Table 1 Toxicity Characteristic Leaching Procedure (TCLP) Max Allowable Levels**

| PARAMETER | WASTE CODE | MAX. ALLOWABLE LEVELS | | ANALYTICAL METHODS |
|---|---|---|---|---|
| | | TCLP (mg/L) | TOTAL (mg/kg) | |
| **TCLP METALS** | | | | |
| Arsenic | D004 | <5.0 | 100 | SW-846-1311/SW-846-6010 |
| Barium | D005 | <100.00 | 2000 | SW-846-1311/SW-846-6010 |
| Cadmium | D006 | <1.0 | 20 | SW-846-1311/SW-846-6010 |
| Chromium | D007 | <5.0 | 100 | SW-846-1311/SW-846-6010 |
| Lead | D008 | <5.0 | 100 | SW-846-1311/SW-846-6010 |
| Mercury | D009 | <0.2 | 4 | SW-846-1311/SW-846-7470 |
| Selenium | D010 | <1.0 | 20 | SW-846-1311/SW-846-7740 |
| Silver | D011 | <5.0 | 100 | SW-846-1311/SW-846-6010 |
| **TCLP VOLATILES** | | | | |

| PARAMETER | WASTE CODE | MAX. ALLOWABLE LEVELS | | ANALYTICAL METHODS |
|---|---|---|---|---|
| | | TCLP (mg/L) | TOTAL (mg/kg) | |
| Benzene | D018 | <0.5 | 10 | SW-846-1311/SW-846-8260 |
| Carbon Tetrachloride | D019 | <0.5 | 10 | SW-846-1311/SW-846-8260 |
| Chlorobenzene | D021 | <100.0 | 2000 | SW-846-1311/SW-846-8260 |
| Chloroform | D022 | <6.0 | 120 | SW-846-1311/SW-846-8260 |
| 1,2-Dichloroethane | D028 | <0.5 | 10 | SW-846-1311/SW-846-8260 |
| 1,1-Dichloroethylene | D029 | <0.7 | 14 | SW-846-1311/SW-846-8260 |
| Methyl Ethyl Ketone | D035 | <200.0 | 4000 | SW-846-1311/SW-846-8260 |
| Tetrachloroethylene | D039 | <0.7 | 14 | SW-846-1311/SW-846-8260 |
| Trichloroethylene | D040 | <0.5 | 10 | SW-846-1311/SW-846-8260 |
| Vinyl Chloride | D043 | <0.2 | 4 | SW-846-1311/SW-846-8260 |

| PARAMETER | WASTE CODE | MAX. ALLOWABLE LEVELS | | ANALYTICAL METHODS |
|---|---|---|---|---|
| | | TCLP (mg/L) | TOTAL (mg/kg) | |
| **TCLP SEMI-VOLATILES (Base Neutrals)** | | | | |
| 1,4 Dichlorobenzene | D027 | <7.5 | 150 | SW-846-1311/SW-846-8270 |
| Hexachlorobenzene | D032 | <0.13 | 2.6 | SW-846-1311/SW-846-8270 |
| Hexachlorobutadiene | D033 | <0.5 | 10 | SW-846-1311/SW-846-8270 |
| Hexachloroethane | D034 | <3.0 | 60 | SW-846-1311/SW-846-8270 |
| Nitrobenzene | D036 | <2.0 | 40 | SW-846-1311/SW-846-8270 |
| Pyridine | D038 | <5.0 | 100 | SW-846-1311/SW-846-8270 |
| 2,4-Dinitrotoluene | D030 | <0.13 | 2.6 | SW-846-1311/SW-846-8270 |

| PARAMETER | WASTE CODE | MAX. ALLOWABLE LEVELS | | ANALYTICAL METHODS |
|---|---|---|---|---|
| | | TCLP (mg/L) | TOTAL (mg/kg) | |
| **TCLP SEMI-VOLATILES (Acid Compounds)** | | | | |
| o-Cresol | D023 | <200.0 | 4000 | SW-846-1311/SW-846-8270 |
| m-Cresol | D024 | <200.0 | 4000 | SW-846-1311/SW-846-8270 |
| p-Cresol | D025 | <200.0 | 4000 | SW-846-1311/SW-846-8270 |
| Cresol, Total | D026 | <200.0 | 4000 | SW-846-1311/SW-846-8270 |
| Pentachlorophenol | D037 | <100.0 | 2000 | SW-846-1311/SW-846-8270 |
| 2,4,5-Trichlorophenol | D041 | <400.0 | 8000 | SW-846-1311/SW-846-8270 |
| 2,4,6-Trichlorophenol | D042 | <2.0 | 40 | SW-846-1311/SW-846-8270 |

| PARAMETER | WASTE CODE | MAX. ALLOWABLE LEVELS | | ANALYTICAL METHODS |
|---|---|---|---|---|
| | | TCLP (mg/L) | TOTAL (mg/kg) | |
| **TCLP HERBICIDES** | | | | |
| 2,4-D | D016 | <10.0 | 200 | SW-846-1311/SW-846-8080 |
| 2,4,5-TP (Silvex) | D017 | <1.0 | 20 | SW-846-1311/SW-846-8080 |
| **TCLP PESTICIDES** | | | | |
| Chlorodane | D020 | <0.03 | 0.6 | SW-846-1311/SW-846-8080 |
| Endrin | D012 | <0.02 | 0.4 | SW-846-1311/SW-846-8080 |
| Heptachlor | D031 | <0.008 | 0.16 | SW-846-1311/SW-846-8080 |
| Lindane | D013 | <0.4 | 8 | SW-846-1311/SW-846-8080 |
| Methyoxychlor | D014 | <10.0 | 200 | SW-846-1311/SW-846-8080 |
| Toxaphene | D015 | <0.5 | 10 | SW-846-1311/SW-846/8080 |

| PARAMETER | WASTE CODE | MAX. ALLOWABLE LEVELS | | ANALYTICAL METHODS |
|---|---|---|---|---|
| | | TCLP (mg/L) | TOTAL (mg/kg) | |
| **GENERAL** | | | | |
| pH | D002 | ≤ 2.0 ≥ 12.5 | | SW-846-9045 |
| Ignitability (Liquids Only) | D001 | >140.0 F (60 C) | | SW-846-C7 |
| Free Liquids | | NO FREE LIQUIDS allowed at Landfills (must pass Paint Filter) | | SW-846-9095 |
| PCB's | | <50 mg/kg or ppm | | SW-846-8080 |
| TPH | | Varies by Disposal facility and/or disposal application | | SW-846-8015, EPA 418.1 API-(GC/FID), ASTM-D3987-85/SW-846-9070 |

# 40053000 U.S. EPA Exploration and Production (E&P) Waste Exemption

In 1988, the EPA issued a regulatory determination stating that control of E&P wastes under RCRA Subtitle C regulations is not warranted. E&P wastes have hence remained exempt from Subtitle C regulations. The RCRA Subtitle C exemption, however, did not preclude these wastes from control under state regulations, under the less stringent RCRA Subtitle D solid waste regulations, or under other federal regulations. In addition, although they are relieved from regulation as hazardous wastes, the exemption does not mean these wastes could not present a hazard to human health and the environment if improperly managed.

With respect to crude oil, primary field operations include activities occurring at or near the wellhead and before the point where the oil is transferred from an individual field facility or a centrally located facility to a carrier for transport to a refinery or a refiner. With respect to natural gas, primary field operations are those activities occurring at or near the wellhead or at the gas plant, but before the point where the gas is transferred from an individual field facility, a centrally located facility, or a gas plant to a carrier for transport to market. Examples of carriers include trucks, interstate pipelines, and some intrastate pipelines.

Primary field operations include exploration, development, and the primary, secondary, and tertiary production of oil or gas. Crude oil processing, such as water separation, de-emulsifying, degassing, and storage at tank batteries associated with a specific well or wells, are examples of primary field operations. Furthermore, because natural gas often requires processing to remove water and other impurities prior to entering the sales line, gas plants are considered to be part of production operations regardless of their location with respect to the wellhead.

The exempt status of an E&P waste depends on how the material was used or generated as waste, not necessarily whether the material is hazardous or toxic. It is important to remember that *all* E&P wastes require proper management to ensure protection of human health and the environment.

Mixing exempt and non-exempt wastes creates additional considerations. Determining whether a mixture is an exempt or non-exempt waste requires an understanding of the nature of the wastes prior to mixing and, in some instances, might require a cycle analysis of the mixture. Whenever possible, avoid mixing non-exempt wastes with exempt wastes. If the non-exempt waste is a listed or characteristic hazardous waste, the resulting mixture might become a non-exempt waste and require management under RCRA Subtitle C regulation. Furthermore, mixing a characteristic hazardous waste with a non-hazardous or exempt waste for the purpose of rendering the hazardous waste non-hazardous or less hazardous might be considered a treatment process subject to appropriate RCRA Subtitle C hazardous waste regulation and permitting requirements.

In a policy letter dated September 25, 1997, EPA clarified that a mixture is exempt if it contains exempt oil and gas exploration and production (E&P) waste mixed with non-hazardous, non-exempt waste. Mixing exempt E&P waste with non-exempt characteristic hazardous waste, however, for the purpose of rendering the mixture non-hazardous or less hazardous, could be considered hazardous waste treatment or impermissible dilution.

Exempt and non-exempt E&P Waste is listed herein. Please consult with state regulations for state-specific waste exemptions.

## 3100 Exempt E&P Waste

- Produced water
- Drilling fluids
- Drill cuttings
- Rig wash
- Drilling fluids and cuttings from offshore operations disposed of onshore
- Geothermal production fluids
- Hydrogen sulfide abatement wastes from geothermal energy production
- Well completion, treatment, and stimulation fluids
- Basic sediment, water, and other tank bottoms from storage facilities that hold product and exempt waste
- Accumulated materials such as hydrocarbons, solids, sands, and emulsion from production separators, fluid treating vessels, and production impoundments
- Pit sludge and contaminated bottoms from storage or disposal of exempt wastes
- Gas plant dehydration wastes, including glycol-based compounds, glycol filters, and filter media, backwash, and molecular sieves
- Work over wastes
- Cooling tower blow-down
- Gas plant sweetening wastes for sulfur removal, including amines, amine filters, amine filter media, backwash, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber liquid and sludge
- Spent filters, filter media, and backwash (assuming the filter itself is not hazardous and the residue in it is from an exempt waste stream)
- Pipe scale, hydrocarbon solids, hydrates, and other deposits removed from piping and equipment prior to transportation
- Produced sand
- Packing fluids
- Hydrocarbon-bearing soil
- Pigging wastes from gathering lines
- Wastes from subsurface gas storage and retrieval, except for the non-exempt wastes listed herein
- Constituents removed from produced water before it is injected or otherwise disposed of
- Liquid hydrocarbons removed from the production stream but not from oil refining

## 3200 Non-Exempt E&P Waste

- Unused fracturing fluids or acids
- Gas plant cooling tower cleaning wastes
- Painting wastes
- Waste solvents
- Oil and gas service company wastes such as empty drums, drum rinsate, sandblast media, painting wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt waste
- Refinery wastes
- Liquid and solid wastes generated by crude oil and tank bottom re-claimers
- Used equipment lubricating oils
- Waste compressor oil, filters, and blow-down
- Used hydraulic fluids
- Waste in transportation pipeline related pits
- Caustic or acid cleaners
- Boiler cleaning wastes
- Boiler refractory bricks
- Boiler scrubber fluids, sludge, and ash
- Incinerator ash
- Laboratory wastes
- Sanitary wastes
- Pesticide wastes
- Radioactive tracer wastes
- Drums, insulation, and miscellaneous solids

Although non-E&P wastes generated from crude oil and tank bottom reclamation operations (e.g., waste equipment cleaning solvent) are non-exempt, residuals derived from exempt wastes (e.g., produced water separated from tank bottoms) are exempt. For a further discussion, see the Federal Register notice, Clarification of the Regulatory Determination for Waste from the Exploration, Development, and Production of Crude Oil, Natural Gas and Geothermal Energy, March 22, 1993, Federal Register Volume 58, Pages 15284 to 15287.

## 4006 Florida Waste Management

Used oil recyclers can process recovered oil and oil/water mixtures into reusable products. Used oil transporters must be certified by FDEP in accordance with 17-710.600 FAC. Used oil recycle facilities must be registered with FDEP and approved to use the general permit for used oil recycling. For specific requirements, see Chapter 17-710, Florida Administration Code. Additional information on used oil recyclers can be obtained at: http://www.dep.state.fl.us

Waste-to-Energy Incinerators

Waste-to-Energy (WTE) Incinerators produce energy from the incineration of municipal solid wastes. Depending on the nature of the material to be disposed of, WTE facilities maybe a viable option for disposal of oil debris and/or soils. WTE facilities must have an air permit and a

power plant site certification from FDEP. For specific requirements, see Florida Statute 376, Part II and Chapters 17-710 and 17-210, Florida Administrative Code.

Soil Thermal Treatment Facilities (STFFS's) use heat to remove petroleum contaminants from soil, resulting in clean soil for various uses. STFF's are an option for petroleum contaminated provided that the soils are not classified as a hazardous waste as defined in 40 C FR 261. STFF's must have an FDEP air permit and be approved to use the general permit for soil thermal treatment. For specific requirements, see Chapters 17-775 and 17-210, Florida Administrative Code.

Land filling of soil and debris which is non-hazardous and non-saturated in a lined Class I landfill in a acceptable disposal option. Landfills must be permitted by the FDEP. Decisions regarding acceptance of wastes are at the discretion of the landfill operator. Laboratory analysis of waste maybe required prior to acceptance. For specific requirements, see Chapter 17-701, Florida Administrative Code. In some cases, treatment of petroleum contaminated soil may include land farming. This process involves spreading the soil in a thin layer over an impermeable liner or surface. The contaminant reduction is caused by a combination of volatilization, biodegradation, and photodegradation.

## 4100 Florida Solid Waste Management

Florida's Department of Environmental Protection (FDEP) is responsible for determining the eligibility of facilities to use general permits for soil thermal treatment and used oil recycling. FDEP also issues permits for landfilling, air pollutant emissions, hazardous waste treatment, storage, and disposal, and for the registration and/or certification of used oil transporters, collection facilities and recyclers. The FDEP Waste Management Division regulates the handling, storage, and testing of petroleum contaminated soil, solid waste, and hazardous waste. Oil spill wastes maybe disposed of at permitted facilities (federal, state and local) authorized by the EPA and FDEP. During federalized spills, it is the responsibility of the FOSC to ensure that waste resulting from a spill is handled properly. Information on these facilities and transporters can be obtained by contacting the Department of Environmental Protection, Emergency Response Coordinator at (813) 470-5700 in Tampa, FL.

The following is a list of permits/licenses, etc. that the FOSC should be aware of and their specific regulatory references found in Code of Federal Regulations and Florida Annotated Code (FAC). Debris from the Oil Spill shall be managed in accordance with the LDEQ Comprehensive Plan for Disaster Clean-up and Debris Management ("the DMP") (revised September 29, 2010 or current version). Specifically, portions of Section 9, "Final Disposal Options," address oil contaminated debris and hazardous waste.

- Used Oil Transporter – 17-710.500 FAC
- Used Oil Certification – 17-710.600 FAC
- Used Oil Facility Registration – 17-710.500 FAC
- General Permit for Used Oil – 17-710.800 FAC

- Used Oil Recycling Facility Registration – 17-710.500 FAC
- Air Permits for Soil Thermal Treatment Facilities – 17-210.300 FAC
- General Permit for Soil Thermal Treatment – 17-775.300 FAC
- Air Permit for waste to Energy Incinerators – 17-210.300 FAC
- Permit to Operate an Industrial Wastewater Treatment Facility – 17-660 FAC
- Permit to Operate Solid Waste Transfer Station – 17-701.801 FAC
- Permit to Operate Class I Landfill – 17-701 FAC
- Permit to Operate Hazardous Waste Facility – 17-730.240 FAC
- Hazardous Waste Transporter EPA ID# – 40 CFR 263.11
- Hazardous Waste Generator EPA ID# – 40 CFR 262.12
- Hazardous Waste Treatment, Storage, and Disposal Facility EPA ID# – 17-730-171 FAC
- Hazardous Waste Transfer Facility EPA ID# - 40 CFR 264.11
- Certificate of Insurance for Hazardous Waste Transporters – 17-730-170 FAC

The Responsible Party (RP) shall develop oil spill specific plans necessary to characterize and manage the wastes generated pursuant to applicable Federal, State, and local requirements. These plans may include waste sampling and analysis plans, waste management plans, site safety plans, SPCC, etc.

The RP will develop a strategy to facilitate the reclamation or recycling of as much materials/oil as practical prior to sending the material for disposal. These strategies may include but not be limited to the following:

- Recovery of oil prior to disposal;
- Reuse/recycling of containment boom;
- Recycling of municipal solid waste such as paper, aluminum, plastics, etc.

The RP will also develop Best Management Plan(s) (BMP) and/or Standard Operation Procedures (SOP) which will include waste/material management procedures for the collection, staging, transportation, and final disposal/recycling of the waste/materials.

# 4200 Florida Waste Classification

Hazardous wastes (HW) are wastes listed in 40 CFR Part 261, Subpart D, as hazardous, or they are wastes characterized in 40 CFR Part 261, Subpart C, as hazardous by exhibiting one of four characteristics: ignitability (i.e., an oxidizer or flash point < 140°), corrosivity (i.e., pH < 2 or > 12.5), reactivity, or toxicity.

A hazardous waste determination must be made of any waste material generated (40 CFR 262.11). If the material is hazardous, then it must be recycled, treated, stored or disposed at a HW facility authorized by FDEP, EPA or another state. HW cannot be disposed on or in the ground, or in local landfills, septic tanks or injection wells. Also, regardless of quantity, the generator of HW, Responsible Party (RP), is ultimately responsible for the waste from "cradle to grave," and can be held liable for improper management of HW even though it may have been sent to a authorized HW management facility using a licensed transporter authorized by FDEP.

The Responsible Party shall develop oil spill specific plans necessary to characterize and manage the wastes generated pursuant to applicable Federal, State, and local requirements. These plans may include waste sampling and analysis plans, waste management plans, site safety plans, SPCC, etc.

## 4201 Waste Recovery and Recycling

The RP will develop a strategy to facilitate the reclamation or recycling of as much materials/oil as practical prior to sending the material for disposal. These strategies may include but not be limited to the following:

- Recovery of oil prior to disposal;
- Reuse/recycling of containment boom;
- Recycling of municipal solid waste such as paper, aluminum, plastics, etc.

The RP will also develop Best Management Plan(s) (BMP) and/or Standard Operation Procedures (SOP) which will include waste/material management procedures for the collection, staging, transportation, and final disposal/recycling of the waste/materials.

## 4300 Florida Type 1 and Type 2 Solid Waste Landfills

A complete list of Waste Management permitted solid waste landfills can be found at the link below: https://www.wm.com/us/en/location/fl

## 4400 Florida Commercial E&P Waste Facilities

A complete list of LDNR E&P Waste Facilities can be found at the links below:
List: HW_Facilities2022-1.xlsx (live.com)
Map: Map Direct: Solid Waste Map (state.fl.us)

## 4500 Florida Commercial Hazardous Waste Treatment, Storage & Disposal Facilities (TSDF)

The below links contain further information on FDEP regulations and instructions:

Transporters of Hazardous and Universal Wastes | Florida Department of Environmental Protection

https://floridadep.gov/waste/permitting-compliance-assistance/content/hazardous-waste-compliance-and-enforcement

# Florida Keys
# Area Contingency Plan
# (FKACP)

# Florida Keys
# Marine Animal Response Plan

# Annex KK

# May 2022

# 1000 Local Marine Mammal and Wildlife Contacts

| Marine Mammal Facilities | | | |
|---|---|---|---|
| **Facility** | **MM** | **GRP** | **Point of Contact** |
| Island Dolphin Care | 100 | S.FL-27, 38 | 1-305-451-5884 |
| Dolphins Plus | 100 | S.FL-27, 38 | 1-305-451-1993 |
| Dolphin Cove | 98 | S.FL-26,27,28 | 1-305-451-4060 |
| Theater of the Sea | 84.5 | S.FL-26 | 1-305-394-2534 |
| Dolphin Connection (Hawks Cay) | 61 | S.FL-21 | 1-305-289-9975 |
| Dolphin Research Center | 59 | S.FL-21 | 1-305-481-8808 |
| Turtle Hospital | 51 | S.FL-19 | 1-305-743-2552 |

| Quick Response Needs (Boom) | | |
|---|---|---|
| **Facility** | **Description** | **Length** |
| Dolphin Research Center | Open | 1200’ |
| Dolphin Connection | Open, 2 sides | 400’ |
| Theater of the Sea | Open | 250’ |
| Island Dolphin Care | Open (Canal) | 150’ at each facility, 200’ of boom to boom of the canal entrance, as both facilities are across from one another. |
| Dolphin Plus | Open (Canal) | |
| Dolphin Cove | Open | 100’ |
| Turtle Hospital | Open containment pools | 250’ |

# 1010 Introduction

The Florida manatee (FE) inhabits the coastal waters, estuaries, tidal creeks, and freshwater river systems of Florida. Manatees will be most susceptible to contaminant exposure if the oil enters estuaries, river mouths, nearshore waters, and intracoastal waters inshore of barrier and mangrove islands, particularly where there are seagrass beds upon which manatees forage. Manatees can be found feeding on seagrass or other aquatic vegetation year-round. During winter months (November/December to February/March), manatees thermoregulate during cold weather by seeking shelter at a limited number of warm-water sites (mostly passive natural and manmade thermal basins in this region). They are

common along inshore and nearshore waters of this region of Florida, but some important areas include: Ten Thousand Islands from Everglades City south into Everglades National Park; Whitewater Bay, Coot Bay, and associated rivers; Florida Bay off of Flamingo; Little Madeira Bay, Joe Bay, Blackwater Sound, Manatee Bay, Barnes Sound, Card Sound; upper and middle Florida Keys, especially Key Largo including Tarpon Basin; and southern Biscayne Bay, including Turkey Point power plant canals.
A variety of dolphins and whales are expected to be present in waters throughout the region. The most common is the bottlenose dolphin which is likely present in nearshore, inshore, and offshore waters of the Gulf of Mexico, Florida Straits, Florida Bay, Biscayne Bay, and the Atlantic Ocean. Atlantic spotted dolphin can be found along the shelf break. Sperm whales (FE) are present in the deep waters of the Straits of Florida. Other mammals present in offshore waters (beyond the shelf break) include Bryde's whale, Pygmy sperm whale, Dwarf sperm whale, Gervais' beaked whale, Blainville's beaked whale, Shortfinned pilot whales, False killer whales (summer), Risso's dolphin, Pygmy killer whale, Melonheaded whale, Rough-toothed dolphin, striped dolphin (winter), Pantropical spotted dolphin, Spinner dolphin, and Clymene dolphin. Dolphins and whales come into contact with oil while at the surface breathing. Oil can irritate sensitive tissues, both externally and internally. Ingestion of oil is not likely for many of these species because they feed in the water column and not at the surface. In baleen whales (Bryde's is the only one in this region) oil can adhere to the baleen and interrupt feeding.

## 1010.1 Purpose

This annex to the Area Contingency Plan has been developed to identify facilities housing protected Marine Mammals and various protected Marine animals within the Florida Keys and provide guidance to the Federal On Scene Coordinator (FOSC) and local responders concerning the environmental threat posed to any of these unique facilities, identifying protection and mitigation strategies and resource requirements. These facilities represent both profit and not for profit, rehabilitation and therapy, and are the largest gathering of conditioned Marine Mammals in the United States.

## 1010.2 Scope

The Marine Life and Mammal Response Plan is prepared and maintained by U.S. Coast Guard Sector Key West. The data recorded and verified in the Marine Life and Mammal Response Plan encompasses all Marine Life and Mammal facilities within this Captain of the Port Zone. This Marine Life and Mammal Response Plan reflect input provided from each of the identified facilities and any applicable regulatory agency. Bottlenose Dolphins are federally protected under the Marine Mammal Protection Act of 1972, NMFS maintains an

inventory of all captive dolphins within the US. For a domestic transport, a 15 day notification to NMFS is necessary. Transport can only occur between APHIS licensed facilities and all facilities need to be licensed to hold and display bottlenose dolphins.

## 1010.3 Abbreviations

| | |
|---|---|
| NMFS | National Marine Fisheries Service |
| FWS | Fish and Wildlife Service |
| MMPA | Marine Mammal Protection Act |
| ESA | Ecological Society of America |
| AWA | Animal Welfare Association |
| APHIS | Animal and Plant Health Inspection Service |
| SWTD | Swim with the Dolphins |
| CITES | Convention on International Trade in Endangered Species |
| IATA | International Air Transport Association |
| MMIR | Marine Mammal Inventory Report |
| SPITS | Service-wide Permits and Information Tracking System |
| MCSO | Monroe County Sheriff's Office |

## 1010.4 Regulatory Information

## Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) of 1972 was the first article of legislation to call specifically for an ecosystem approach to natural resource management and conservation. MMPA prohibits the taking of marine mammals, and enacts a moratorium on the import, export, and sale of any marine mammal, along with any marine mammal part or product within the United States. U.S. Congress defines "take" as "the act of hunting, killing, capture, and/or harassment of any marine mammal; or, the attempt at such. The MMPA prohibits the take and exploitation of any marine mammal without appropriate

authorization, which may only be given by the Service. Permits may be issued for scientific research, public display, and the importation/exportation of marine mammal parts and products upon determination by the Service that the issuance is consistent with the MMPA's regulations.

## National Marine Fisheries Service (NMFS)

A division of the National Oceanic and Atmospheric Administration (NOAA) and the Department of Commerce, NMFS is responsible for the stewardship and management of the nation's living marine resources and their habitat within the United States' Exclusive Economic Zone, which extends seaward 200 nautical miles from the coastline. Under the Marine Mammal Protection Act and the Endangered Species Act, the agency is also tasked with recovering protected marine species such as dolphins, whales and sea turtles.

## Fish and Wildlife Service

The United States Fish and Wildlife Service (FWS) is a federal government agency within the U.S. Department of the Interior dedicated to the management of fish, wildlife, and habitats. The mission of the agency reads as "working with others to conserve, protect, and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people."

## Animal and Plant Health Inspection Service

An agency of the United States Department of Agriculture (USDA) responsible for protecting animal health, animal welfare, and plant health. APHIS is the lead agency for collaboration with other agencies to protect U.S. agriculture from invasive pests and diseases.

## U.S Coast Guard

Under the Clean Water Act (33 USC 1321 et seq.), the Commandant of the Coast Guard, acting under the authority delegated to him for pollution discharge response and removal, may, whenever a marine disaster in the navigable waters of the United States has created a substantial threat of pollution, coordinate and direct all public and private efforts directed at the removal of such a threat.

Commander Sector Key West serves as the Federal on Scene Coordinator (FOSC) and oversees the oil spill response effort and determines if the efforts were conducted in accordance with the National Contingency Plan.

## 1010.5 Facility Descriptions

Each of the six facilities are very different, but all house marine mammals and other marine life. Geographically, they are all located with 60 miles of one another and are located on both the Gulf and Atlantic side.

## Hawk's Cay Resort – Dolphin Connection (DolCon)

| Location | Duck Key MM 61 – Hawks Cay Resort | |
|---|---|---|
| Contacts | Doug Messinger | 305-393-1037 |
| | Sylvia Rickett | 305-304-8893 |


**Figure 1: Dolphin Connection**

A Swim with the Dolphin facility that has a staff of 11 persons with 1 HAZWOPER trained. They have 5 Atlantic Bottlenose dolphins in an open pen, which receives sea water from the adjacent canal. The pen has a 400 foot free water opening into the adjacent canal. In order to boom the facility, they would need 400 feet of boom to segregate the facility. Hawks Cay is surrounded by a breakwater wall of

rip rap, which creates a natural protective barrier around Duck Key. Water flows in via two vessel entrances, and then circulates through the canal to create a natural flow of water.

**Facility Response Posture**

**Heavy Weather** - They have a detailed Hurricane plan for the facility. As far as evacuations are concerned, the following are the facility triggers regarding tropical weather conditions.

- Cat 1 or 2 Staff stays on site with the Dolphins.
- Cat 3, 4, 5 evacuate the animals.
- Animals are trained to respond to underwater pingers to assist in locating if necessary.

**Evacuation Information** - DolCon follows Monroe County for evacuation information/determination and tries to evacuate before the general population of Monroe County. They have transport containers and gear on site for each animal housed at their location. As a contingency, arrangements have been made with Walt Disney World, Sea World and Mote Marine Lab as evacuation locations. This can change from year to year depending on space availability. Arrangements have also been made with the Brookfield Zoo in Chicago (DolCon currently houses 3 Brookfield Zoo animals) if the animals need to be flown out of state. Walt Disney World and Brookfield Zoo also send additional staff to assist if necessary. A local truck rental company is also contracted to supply the necessary trucks should an evacuation be in order. Walt Disney World also assists DolCon with trucks, if requested.

**Possible Pollution/HAZMAT Threat** – Monitor the situation, deploy oil deflection boom around perimeter of pens (approximately 400’ of boom needed to protect pens), notify USCG and local contractor if assistance is needed. If the situation presents itself the animals will be evacuated from the facility.

Geographic specifics for the Hawks Cay Duck Key area can be found in the Key West ACP/GRP Index Maps S.FL-21

Staging Areas – The shore-side staging area for responses focusing on Dolphin Connect could be done within the parking lot of Hawks Cay Marina. A boat ramp is easily assessable within Hawks Cay Marine. The ramp is under lock and key, but marina personnel will unlock for response needs. Boom can be easily pulled and deployed to Dolphin Connection from within minutes of the launch site.

Personnel: (1) USCG Personnel, (2-4) OSRO Personnel, (1-2) Boat Operators

Equipment: 400 – 600 Feet of Deflection Boom, (1) 18' Flat Bottom Boat (OSRO), PPE (gloves, steel toed shoes, safety glasses), (1) Satellite Phone, (1) Handheld VHF-FM Marine-Band radio, life floatation devices

If OSRO assets are unavailable or the urgency requires more immediate deployment, the Sector Key West IMD will deploy boom in conjunction with USCG Station Islamorada.

## Theater of the Sea - (TOTS)

| Location | Islamorada MM 84.5 | |
|---|---|---|
| Contacts | Beverley Osborne | 305-394-2534 |
| | Pamela Hughes | 305-394-3352 |
| | Nina Lambert | 305-394-3352 |
| | Seamus Smith (night guard) | 305-942-1990 |


**Figure 2: Theatre of the Sea**

Theater of the Sea (TOTS) is an open system lagoon, which was originally a rock quarry that supplied coral to the overseas railroad. The system consists of an underground channel and a sea pump at the end of the channel which supplies 12 million gallons of sea water a day to the lagoon. This water flows through the various pools, including the sea lion habitat, fish pools and the 2.5 acre main lagoon, which houses the dolphins. In addition, there are 2 circulation pumps

within the main lagoon (furthest point from the main sea intake) to ensure adequate water flow within the lagoon.

TOTS employees over 50 persons, with 22 of them being specifically trained in animal care and is home to 9 Atlantic Bottlenose Dolphins and 5 California Sea Lions, as well as numerous Marine animals, including Sea Turtles.

## Facility Response Posture

**Heavy Weather** – The following outlines Theatre of the Sea's hurricane response plan.

- **Animal housing areas**
  All structure and objects in and around animal housing are securely fastened or removed to prevent movement and to keep debris from entering the pools and enclosures. Animals are placed in areas that are sufficiently protected, with ample space and depth to provide safety. As an alternative, the sea lions are transported to safe ground and attended by qualified animal care staff until their return.

- **Power Outage**
  A 125-kilowatt generator is maintained on Theater of the Sea grounds to supply emergency power to pumps, and emergency lighting. The generator and fuel tank are elevated and mounted on a 15-foot tall steel frame to prevent damage by flooding.

- **Fresh water interruption**
  Arrangements are made with any or all distributors of bottled water in our area so that sufficient amounts of water can be kept on hand to meet all animal needs and provide for proper sanitation.

- **Personnel**
  A sufficient number of animal care staff members maintain access to animals throughout emergency situations and are able to provide for animals until normal operations of the facility is resumed.

- **Animal care issues**
  Disposable food containers are used to save on available water and/or to reduce workload on staff. Access to ample amounts of medication, vitamins, etc are available. A minimum of two weeks food supply for the animals is present on Theater of the Sea grounds at all times.

**Possible Pollution/HAZMAT Threat** – TOTS has identified a 4 level response posture in dealing with a possible environmental threat from the water.

Geographic specifics for the Theatre of the Sea area can be found in the Key West ACP/GRP Index Maps S.FL-26

Staging Areas – The shore-side staging area for responses focusing on Theatre of the Sea could be done within the parking lot of the facility. A boat ramp is easily assessable within Hawks Cay Marine. Boom can easily be deployed from the dock of Pelican Cove and deployed to where the water intakes for the facility are located.

Level 1 - Apply approximately 250 foot of boom to protect the sea water intake, which is not located on the facilities property. Permission must be obtained from outside of TOTS in order to effectively boom the sea water intake. 100 feet of containment boom is currently maintained at the facility.

Personnel: (1) USCG Personnel, (1-2) OSRO Personnel, (1) Boat Operators

Equipment: 250 Feet of Deflection Boom, (1) 18' Flat Bottom Boat (OSRO), PPE (gloves, steel toed shoes, safety glasses), (1) Satellite Phone, (1) Handheld VHF-FM Marine-Band radio, life floatation devices

If OSRO assets are unavailable or the urgency requires more immediate deployment, the Sector Key West IMD will deploy boom in conjunction with USCG Station Islamorada.

Level 2 - Shut down the sea pump to prevent possible contaminated water from being brought into the park. The pumps could be reversed which would promote clean water to seep up through the coral rock of the lagoon. Aerators would then be installed to oxygenate the water, should the pumps be shut down, to maintain a sufficient oxygen level for the fish in the lagoon.

Level 3 – Convert the system to a closed water system. If this is done, the main lagoon could possibly house the animals from the other facilities. To obtain this level several step would have to be in place to ensure the water remained clean. A custom filtration system, with protein fractionators and recirculation systems would have to be custom manufactured and installed.

Level 4 – (Worst Case Scenario) Relocate the animals to another facility or out of the country. The following:

Dolphins are transported in lined stretchers which are suspended in open top speed rail containers.

- 9 kodel lined thermal stretcher

  - feet wide, 7.5 feet long, (2) 11 inch round kodel collar pectoral fin openings 1 feet 4 inches from front, 1 feet 3 inches from sides, and 5 inches between,12 inch by 3 inch kodel collar genital opening 4 feet 10 inches from front, pockets to fit 1 ½ inch aluminum poles.

- (20) 1 ½ inch aluminum poles.
- (9) speed rail containers 120” X 35” X 37”
- (9) Removable, light weight, non-abrasive vinyl material, such as starboard, or painted plywood with rounded edges to fit the bottom of the carrier and prevent the bladder from being punctured
- (9) Vinyl bladders with metal grommets every 6 inches
- (9) Open cell foam or (9) 2 inch closed cell foam to fit container between bladder and bottom of the box
- (2) Bilge pumps, 12 V battery (or AC power invertors) and 100 feet collapsible hose to aid in draining the carrier

Sea lions
TOTS already has sea lion carriers.

Sea turtles
Currently have 3 but need 7 more livestock water tanks

Transport vehicle for dolphins, sea turtles, and sea lions.
Federal Express Cargo
Active Aero Charter
26 foot refrigerated Ryder Truck

# Dolphin Research Center – (DRC)

| Location | Grassy Key MM 59 | |
|---|---|---|
| Contacts | Rita Irwin | 305-849-3521 |


**Figure 3: Dolphin Research Center**

Dolphin Research Center (DRC) is an open water dolphin research and SWTD facility, occupying over 1000 feet of waterfront that is located on the Gulf of Mexico in Grassy Key, Florida. Its water is supplied by the ebb and flow of the tides and current of the Gulf of Mexico. The location of the dolphin pens occupies approximately 800 feet of linear waterfront. DRC employees over 70 persons and is home to 20 Atlantic bottlenose dolphins and 3 California sea lions. DRC is licensed to hold up to 44 dolphins. Due to its location on the Gulf DRC is the most exposed and susceptible to heavy weather and /or environmental damage of the mammal facilities.

## Facility Response Posture

**Heavy Weather** – The staff at DRC has over 30 years of dealing with hurricanes and has learned that each storm presents unique challenges and must be responded to based on the specifics of the situation. Historically, moving the animals presented numerous obstacles, especially the stress endured by a juvenile, pregnant or ill animal. These are all factors that will influence whether or not to move the animals.

DRC had implemented several protocols to aid in identifying and locating DRC dolphins if they were to leave the facility during a hurricane. The majority of DRC dolphins are trained to wear a neoprene band around their peduncle (tail sock) that is brightly colored and has contact information written on it. As a secondary precaution, all the dolphins are trained to respond to an underwater pinger that emits a particular frequency.

**Possible Pollution/HAZMAT Threat –** DRC does not have any pollution response equipment on site. They do have 1 facility personnel that is HAZMAT trained. Given the location of the facility, they are extremely vulnerable to an oil or HAZMAT incident. They have over 800 feet of open waterfront and the dolphin pens are open to free flowing water on three sides. DRC maintains three dolphin transport stretchers, a sea lion squeeze cage and two sea lion transport boxes on site. DRC is currently researching a local quarry that could act as a temporary storage site for the animals, should the facility get severely impacted by an oil spill.

Geographic specifics for the Dolphin Research Center and Grassy Key can be found in the Key West ACP/GRP Index Maps S.FL-21.

Staging Areas – The shore-side staging area for responses mounted to Dolphin Research Center should be located within the parking lot of the facility. The waters surrounding the facility are shallow on a shallow water response skiff is a necessity to pull the boom. Responders may find it necessary to deploy boom while wading through the water.

Personnel: (1) USCG Personnel, (2 – 4) OSRO Personnel (1-2) Boat Operators

Equipment: 1200 feet of containment boom, (1) 18' Flat Bottom Boat (OSRO), PPE (gloves, steel toed shoes, safety glasses), (1) Satellite Phone, (1) Handheld VHF-FM Marine-Band radio

If OSRO assets are unavailable or the urgency requires more immediate deployment, the Sector Key West IMD will deploy needed boom in conjunction with USCG Station Marathon.

# Island Dolphin Care, Dolphins Plus, Dolphin Cove

**Island Dolphin Care**

| Location | 150 Lorelane Place, Key Largo (MM 100) | |
|---|---|---|
| Contacts | Deena Hoagland | 305-451-9272 office<br>305-522-2717 |
| | 24 Hour Contact | 305-451-1289 |

**Dolphin Plus**

| Location | 31 Corrine Place, Key Largo (MM 100) | |
|---|---|---|
| Contacts | Art Cooper | 305-360-2204 |

| | | |
|---|---|---|
| | 24 Hour Contact | 305-451-1289 |

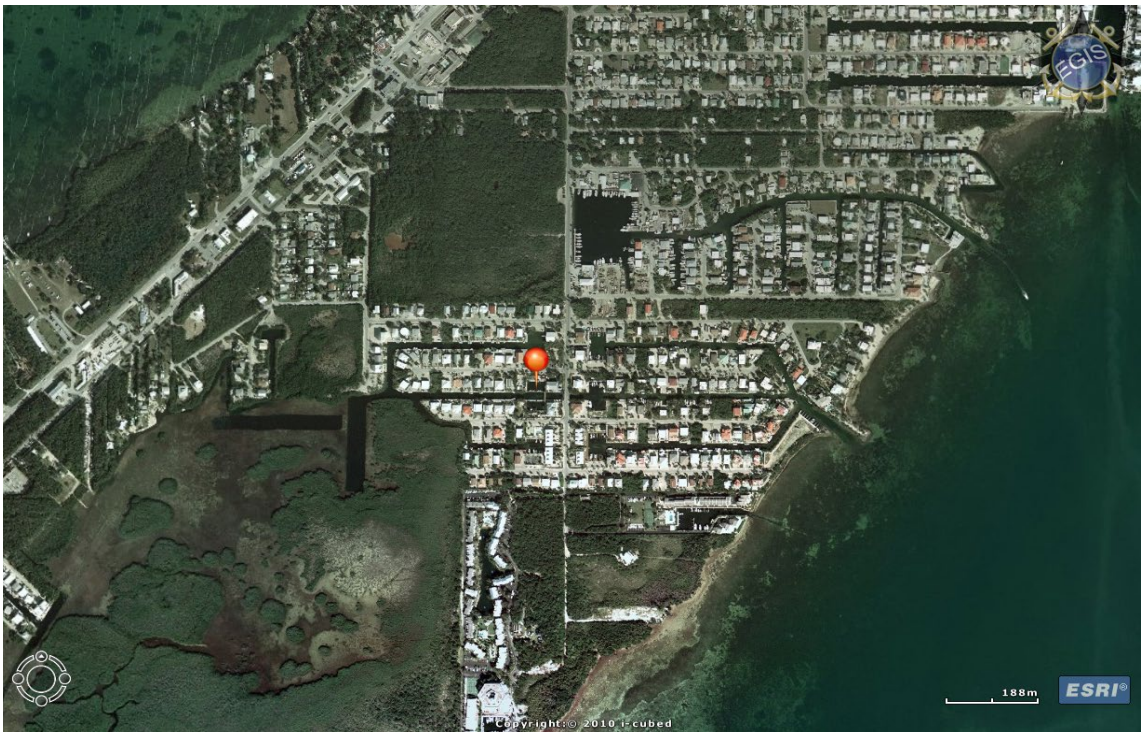


**Figure 4: Dolphin Plus and Island Dolphin Care**

Dolphin Plus and Island Dolphin Care are both SWTD facilities and are located directly across from one another on a residential canal approximately 400 yards from the open Ocean. They have a total of 2 pens, each measuring 65 feet by 130 feet and are rectangular in shape. The pens are only open along the 130 foot side facing the canal. The two facilities have a total of 37 employees and are home 11 dolphins and 1 sea lion. The canal, which the 2 facilities are located on, has a bridge which may limit the height of a response vessel with a T-top. Both facilities are easily accessible by vehicle and are located just off of MM 100 in Key Largo.

## Facility Response Posture

**Heavy Weather** – The curator of the facilities would make the call on a case by case basis, regarding facility actions during a heavy weather event.

**Possible Pollution/HAZMAT Threat –** Both facilities maintain a perimeter boom along the exposed canal portion of the pens. The best possible booming strategy for Dolphin Plus and Dolphin Cove would be to boom each end of the canal that the two facilities reside on, dramatically limiting the amount of surface oil that could transit the canal. Both facilities are fairly safe from oil/HAZMAT products,

due to the unique location of the canal entrance and the narrow opening of the entrance.

Geographic specifics for the Dolphin Research Center and Grassy Key can be found in the Key West ACP/GRP Index Maps S.FL-27, 38.

Staging Areas – The shore-side staging area for responses mounted to Dolphin Research Center should be located within the parking lot of the facility. The waters surrounding the facility are shallow on a shallow water response skiff is a necessity to pull the boom. Responders may find it necessary to deploy boom while wading through the water.

Personnel: (1) USCG Personnel, (2 – 4) OSRO Personnel (1-2) Boat Operators

Equipment: 500 feet of containment boom, 150' at each facility and 100' at the opening ends of the canal, (1) 18' Flat Bottom Boat (OSRO), PPE (gloves, steel toed shoes, safety glasses), (1) Satellite Phone, (1) Handheld VHF-FM Marine-Band radio

If OSRO assets are unavailable or the urgency requires more immediate deployment, the Sector Key West IMD will deploy needed boom in conjunction with USCG Station Marathon.

**Dolphin Cove**

| Location | 101900 Overseas Hwy, Key Largo | |
|---|---|---|
| Contacts | Art Cooper | 305-360-2204 |
| | 24 Hour Contact | 305-451-4054 |


**Figure 5: Dolphin Cove**

Dolphin Cove is a SWTD facility located on the Gulf of Mexico at MM 102. The facility has one large pen that is circular in design with a maximum opening of 100 feet. The pen opening faces Tarpon Bay which is located very far north and protected by numerous mangroves. The opening of the pen is located in shallow water about 2-3 feet deep. The facility is home to 4 dolphins and 12 employees. All employees are HAZCOM and HAZWOPPER trained.

## Facility Response Posture

**Heavy Weather** – The curator of the facilities would make the call on a case by case basis, regarding facility actions during a heavy weather event.

**Possible Pollution/HAZMAT Threat –** The dolphin pen is located on the Gulf Side, circular in shape, and is about 21,000 square feet in diameter. There is only one opening that spans 100 feet and is in located shallow water, making it very easy to boom off. There are numerous mangroves the surround the facility and will help to form a natural barrier. There is no limitation to vehicle access from the road side, however waters surrounding the facility is 2- 3 feet deep and could provide a draft challenge to waterside response vessels.

Geographic specifics for the Dolphin Research Center and Grassy Key can be found in the Key West ACP/GRP Index Maps S.FL-26, 27, 28.

Staging Areas – The shore-side staging area for responses mounted to Dolphin Research Center should be located within the parking lot of the facility. The waters surrounding the facility are shallow on a shallow water response skiff is a necessity to pull the boom. Responders may find it necessary to deploy boom while wading through the water.

Personnel: (1) USCG Personnel, (1 – 2) OSRO Personnel (1) Boat Operator

Equipment: 100 feet of containment boom, (1) 18' Flat Bottom Boat (OSRO), PPE (gloves, steel toed shoes, safety glasses), (1) Satellite Phone, (1) Handheld VHF-FM Marine-Band radio

If OSRO assets are unavailable or the urgency requires more immediate deployment, the Sector Key West IMD will deploy needed boom in conjunction with USCG Station Marathon.

**Marathon Turtle Hospital**

| | | |
|---|---|---|
| Location | 2396 Overseas Hwy, Marathon | |
| Contacts | Ryan Butts | 305-481-7669 |
| | Tara Vickrey | 305-481-7669 |


The Turtle Hospital is a rehabilitation, research and education center located in Marathon, Florida at MM 48.5. The facility has 8 employees who care for up to 50

endangered sea turtles at a time, 16 which cannot be returned to the wild due to the severity of their injuries. The turtles are housed in the following above ground rehabilitation pools: 1 – 100,000gal salt water tidal pool, 28 – 650gal rehab pools, 1 – 15,000gal rehab pool, and 2 – 30,000gal hurricane emergency relief pools.

The pools are run on an "open" water system, using sea water as the primary water source. The hospital would need 250 feet of boom to protect the sea water intake. In case of an emergency the 2 – 30,000 hurricane relief pools can be segregated for the ocean and ran a s a closed system. The facility can hold approximately 50 Turtles in this system. In the very unlikely case that the hospital would have to move the turtles out of Monroe County, the animal would be placed in "kiddie" pools and transported in temperature controlled trucks to SeaWorld, Loggerhead Marine Life Center Clearwater Aquarium or Mote Marine.

**Facility Response Posture**

**Heavy Weather** – The Turtle Hospital currently has a hurricane contingency plan. This involves moving the animals to hurricane relief pools at the front of the property to higher elevation. Also involved with this plan is a plan to secure the facility and ensure safety of employees

**Possible Pollution/HAZMAT Threat –**

Geographic specifics for the Marathon Turtle Hospital can be found in the Key West ACP/GRP Index Maps S.FL-19.

Staging Areas – The shore-side staging area for responses mounted to Turtle Hospital should be located within the parking lot of the facility. The waters surrounding the facility are shallow and a shallow water response skiff is a necessity to pull the boom. Responders may find it necessary to deploy boom while wading through the water.

Personnel: (1) USCG Personnel, (1 – 2) OSRO Personnel (1) Boat Operators

Equipment: 250 feet of containment boom, (1) 18' Flat Bottom Boat (OSRO), PPE (gloves, steel toed shoes, safety glasses), (1) Satellite Phone, (1) Handheld VHF-FM Marine-Band radio

If OSRO assets are unavailable or the urgency requires more immediate deployment, the Sector Key West IMD will deploy needed boom in conjunction with USCG Station Marathon.