Lowcountry Area Contingency Plan (LACP)

2023.2

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	CWO2 Gary Barnum
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1100 Introduction

The Lowcountry Area Contingency Plan (LACP) 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 South Carolina Coastal Zone.

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 LACP.
- 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 LACP 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 LACP 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 LACP contains an overview of the Geographic Response Strategies (GRSs) 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 LACP Annexes are described in the next section.

1200 Annexes

The LACP 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 LACP 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 South Carolina Coastal Zone Lowcountry Area Committee (LAC). 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 Charleston 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
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, Additional guidance (referenced in Sec 1600) R4 RCP Annex 13 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 (N/A for D7, link MEXUS Plan and MEXUSGULF Annex in Sub-Section 1513.1)
Annex P	Initial Reporting Form

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 GG	Disposal Plan
Annex HH	Decanting Plan

1300 Area Committee

The Lowcountry Area Committee (LAC) 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 LAC, under the direction of the USCG Charleston Captain of the Port (COTP), is responsible for developing an ACP. The LAC 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 LAC 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 LAC is to ensure the highest state of readiness of the spill response community. The LAC 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 LAC will function as an efficient organization for ensuring effective response to environmental threats in our area. The LAC will collaborate, sharing information and resources to produce the best possible plans and creative solutions to problems. The LAC will employ best available research and technology in both problem solving and decision-making. The LAC will learn from responses and activities, improve processes, and develop as individuals and as an organization.

1320 Organization

The LAC 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 Charleston COTP, as predesignated Federal On-Scene Coordinator (FOSC), shall Chair the Area Committee (AC). The Vice Chair is designated as the State On-Scene Coordinator (SOSC) of the SC Department of Environmental Services (SCDES).

1322 Executive Secretary / Coordinator

The AC Coordinator from USCG Sector Charleston will coordinate with the Executive Steering Group 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.

1323 Members and Members-at-Large

A list of LAC members can be found on Table 4, and members-at-large on Table 5 in Section 1800 of this document. These lists will be maintained by the AC Coordinator.

1324 Subcommittees

Subcommittees are established to work on functional items pertaining to the AC. They are specifically tasked to complete assigned projects, tasks, and goals that are developed by the ESG. Working Groups may be assigned under a functional subcommittee to complete tasks or large projects as necessary. The four functional subcommittees, under which tasks are assigned, are:

- Preparedness
- Response
- Science and Technology
- Training and Exercises

Note: Specific subcommittee tasks/priorities and projects will be maintained by the AC Coordinator.

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; maintaining order; and reviewing recommendations submitted to the ESG. In the absence of the FOSC, these duties shall be performed by the Sector Charleston Deputy Sector Commander, who serves as the Alternate FOSC.

1331 Meeting Frequency

AC meetings shall be held at least semi-annually. LAC strives to hold one meeting in each of the major ports within the Charleston AOR 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 Charleston currently utilizes Microsoft Teams to provide remote access.

1340 FOSC Annual Report

Sector Charleston shall submit an FOSC Annual Report emphasizing activities and best practices for the previous calendar year NLT 1 May 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 LACP shall be updated annually. The LACP shall be reviewed and approved by the LAC and USCG D7 every five years.

1410 Annual Updates

The LAC 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 Charleston, 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 (GRS) Validation

GRS 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 LACP, the minimum level of GRS validation has been met, however, it is recommended that the LAC 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 LAC shall hold three annual Incident Management Team (IMT) Tabletop Exercises (TTXs) 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 LAC and PREP Compliance, Coordination and Consistency Committee (PREP 4C). The LAC 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.

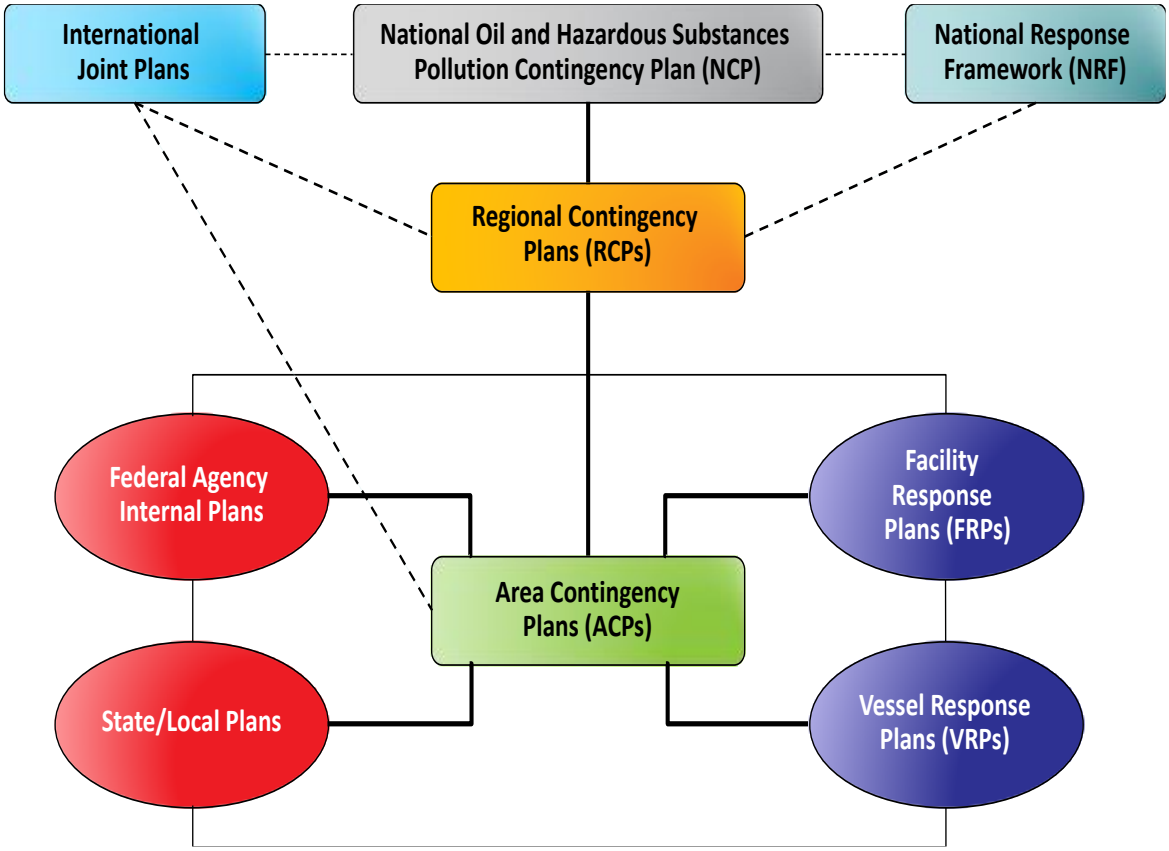

Figure 1: Relationship of Plans

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.

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 E 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.

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 Charleston 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 a list of *appointed* Area Committee Members:		
1.	Federal	Department of the Interior
		Joint Base Charleston
		Marine Corps Air Station Beaufort
		National Oceanic and Atmospheric Administration
		National Weather Service
		U.S. Air Force
		USCG
		U.S. Environmental Protection Agency
		U.S. Fish and Wildlife Service
		U.S. Navy
2.	State	South Carolina Department of Environmental Services (SCDES)
		South Carolina Department of Natural Resources (SCDNR)
		South Carolina State Ports Authority (SCPA)
3.	Local	Berkeley County
		Beaufort County
		Charleston County

Table 3: Area Committee Members		
Below is a list of *appointed* Area Committee Members:		
		Charleston Fire Department
		Charleston Pilots Association
		Colleton County
		Georgetown County
		Horry County
		Jasper County
		Town of Mount Pleasant

Note: Specific AC designation letters will be maintained by the AC Coordinator

Table 4: Area Committee Members at Large		
Below is a list of Area Committee *Members at Large:*		
1.	Consulting	Hines & Gilsenan LLC
		Womble Bond & Dickinson (US) LLC
2.	Environmental Protection	Charleston Waterkeeper
3.	Facility Owners or Operators	Amalie Oil Company
		BP Cooper River
		Buckeye Terminals
		Carver Maritime
		Charleston City Marina
		ES-Integrated
		Hawthorne Services/ Defense Fuel
		Ingevity
		Kinder Morgan
		Norfolk Southern Corp.
4.	Maritime	Charleston Pilots Association
		Maritime Association of South Carolina
5.	Co-op	Liquid Spillage Control Committee
6.	Wildlife Care Organization	Avian Conservation Center, the Center for Birds of Prey
7.	OSROs	Moran Environmental Recovery
		MSRC

		HEPACO
8.	Salvers	Eason Diving
		Maritime Association of South Carolina

2000 Geographic Jurisdiction and Boundaries

2100 Geographic Area Covered

The Sector Charleston COTP Zone is defined in 33 C.F.R. 3.35-15 and depicted in Figure 4 below. Within this COTP Zone, the USCG COTP/FOSC area of responsibility for the LACP 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 Eighth District and EPA Region 6 and is documented in the Memorandum of Agreement (MOA) dated Apr 2018. 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."

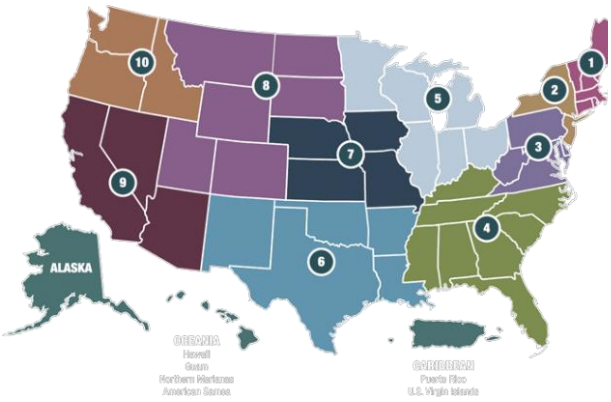

Figure 2: RRT Areas

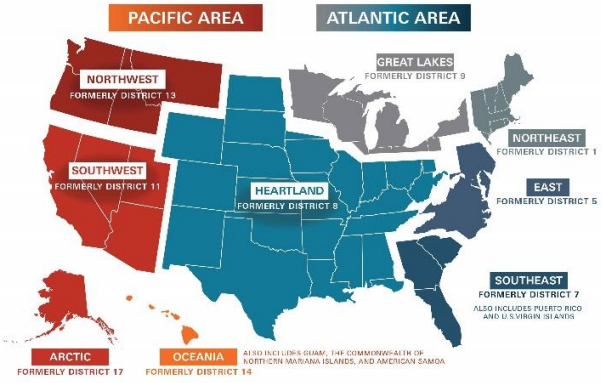

Figure 3: U.S. Coast Guard Districts

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 within or threatening 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, a dashed line on a layer within NOAA's Environmental Response Management Application (ERMA) depicts the Inland Zone / Coastal Zone boundary within the LACP planning area and is shown in Figure 5.

The intersection of the North Carolina - South Carolina state border at the sea; then inland (west) along the North Carolina and South Carolina state border to US 17; then south along US 17 (never on US 17 Alt or US 17 Bus) to I-95 near I-95 mile marker 33; then south along I-95 to the eastern

bank of the Savannah River; then east along the northeast bank of the Savannah River to the eastern tip of Oyster Bed Island.

Also included will be the Intracoastal Waterway, Winyah Bay to US 17, Charleston Harbor to connecting tributaries, Ashley River to SC 7 Memorial Bridge, Wando River to SC 41, and Cooper River to US 17 Alternate/SC 52 (near Moncks Corner, SC).

Although the Sector Charleston COTP and predesignated coastal zone FOSC is responsible for all pollution planning, preparedness, and response within the defined coastal zone, a subordinate unit DDO Myrtle Beach is assigned responsibility to respond to oil discharges and hazardous substance releases north of the Sampit River in Georgetown, SC.

Figure 4: Map of Sector Charleston COTP Zone

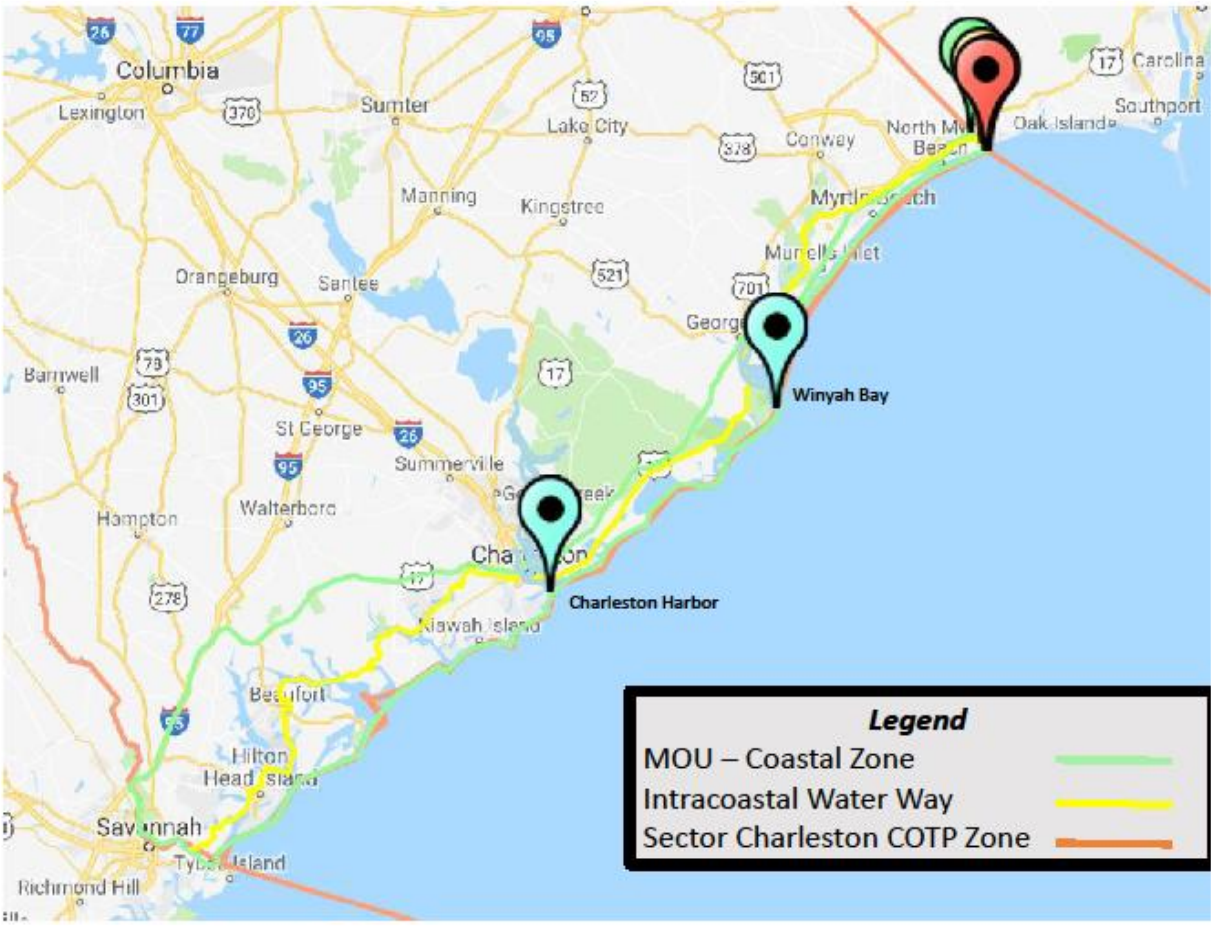

Figure 5: Map of Coastal Zone Boundary

2130 Sub-geographic Areas

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

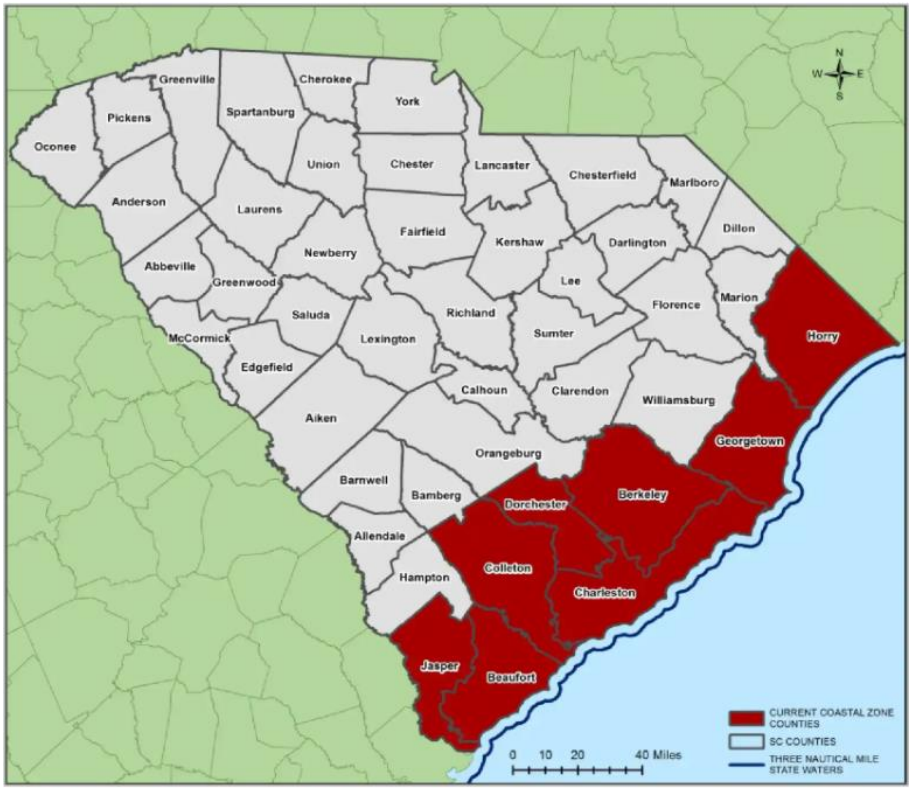

Figure 6: Area Counties

Berkeley County
Beaufort County
Charleston County
Colleton County
Georgetown County
Horry County
Jasper 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 LACP. RRT-4 normally holds semiannual meetings in the spring and fall of each year.

Refer to the RRT-4 Regional Contingency Plan 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 South Carolina

3211 South Carolina Department of Environmental Services (SCDES)

The SC Department of Environmental Services (SCDES), a designated state Natural Resource Trustee, holds the authority to protect the health of the public and the environment. This authority is granted by the SC Pollution Control Act, the SC Hazardous Waste Management Act, the SC Oil and Gas Exploration, Drilling, Transportation and Production Act, and SC Hazardous Waste Management Regulations.

3212 South Carolina Department of Natural Resources (SCDNR)

The SC Department of Natural Resources (SCDNR), a designated Natural Resource Trustee, protects and manages the natural resources and habitats of the State of South Carolina. The authority held by the SCDNR is granted by SC Environmental Protection and Conservation Laws and the Federal Fish and Wildlife Coordination Act.

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 technically 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 South Carolina.

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 in order 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 with regard to 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 of 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.

The Coast Guard Incident Management Handbook (IMH) details additional functions of the NOAA SSC as a command staff member with special coordination responsibilities within the environmental unit.

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 South Carolina. 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 Atlanta, Georgia.

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 LACP planning area. National Wildlife Refuge lands established in/near the ACP planning area include:

Cape Romain National Wildlife Refuge	Awendaw, SC	843-928-3264
Ernest F. Hollings Ace Basin National Wildlife Refuge	Hollywood, SC	843-889-3084
Pinckney Island National Wildlife Refuge	Hardeeville, SC	843-784-9911
Santee National Wildlife Refuge	Summerton, SC	803-478-2217
Savannah National Wildlife Refuge	Hardeeville, SC	843-784-9911
Tybee National Wildlife Refuge	Hardeeville, SC	843-784-9911
Waccamaw National Wildlife Refuge	Georgetown, SC	843-527-8069

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 the Fish and Wildlife and Sensitive Environments Plan (FWSEP), and the Wildlife Response Plan, within the Consultations Compendium, Annex G of the RRT-4 RCP.

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 U.S. National Park Service (NPS)

The National Park Service preserves unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations. The Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world. There are 12 Natural Park Units responsible for national park management and program implementation within DOI's unified Regions.

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. .

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.

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.

Additionally, the USACE provide information on river levels within most District 7 ACP planning areas. River level data for the LACP planning area can be found on the National Weather Service River Forecasts (NOAA – National Weather Service – Water).

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 South Carolina 43rd CST is located in West Columbia, SC.

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

3521 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 Annex G of this plan, and the National Response Team's Use of Volunteers Guidelines for Oil Spills.

3522 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. See National Fire Protection Association (NFPA) Certified Marine Chemists for a list of certified Marine Chemists.

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 LACP 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 LACP planning area.

4110 WCD Tables for Oil Products in LACP Planning Area

Table 5: Worst Case Discharges for LACP Planning Area (all transportation modes)				
FOSC				
Type	**Owner / Operator Vessel / Facility Name**	**Location**	**Amount**	**Product**
MTRF	Kinder Morgan – Shipyard River Terminal	North Charleston, SC	122,354 bbl 5,138,873 gal	Oil Products
Pipeline	Defense Fuels	Charleston County, SC	3,395,374 barrel-miles	Oil Products
Rail	CSX/Norfolk Southern Corp	Charleston County, SC	12,857 bbl 540,000 gal	Oil Products
Vessel	Oil Tanker	MTR facilities along the Cooper River	302,783 bbl 12,716,886 gal	Oil Products

4120 WCD Table for Hazardous Substances in LACP Planning Area

Table 6: Worst Case Discharges for Hazardous Substances in the LACP Planning Area (all transportation modes)				
FOSC				
Type	**Owner/Operator or Vessel/Facility Name**	**Location**	**Amount**	**Product**
Facility	INEOS	Wando, SC	127,539 bbl 5,356,651 gal	P-xylene
Vessel	TBD	TBD	TBD	TBD
Rail	TBD	TBD	TBD	TBD

4130 Area Planning and Risk Analysis

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

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 affects for ***all*** potential response actions that may be implemented during the emergency response.

- Endangered Species Act (ESA) and Essential Fish Habitat (EFH) Form (for emergency consultations, pre-spill consultations and post-response procedures), is attached to RRT-4 RCP.

4210 Preauthorization and Best Management Practices (BMPs)

Pre-spill consultations have been completed for the LACP 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 LACP Planning Area

A list of all threatened and endangered species and designated critical habitat for the LACP planning area is available captured in the Biological Assessment for Oil Spill Countermeasures of the RRT-4 RCP.

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 South Carolina.

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 Annex H of the RRT-4 RCP, and Section 2.3.2.1 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)

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). South Carolina's existing GRSs can be downloaded (67MB) from NOAA's Emergency Response Mapping Application (ERMA).

Although GRSs 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 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 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 discharged or hazardous substance is released in the LACP planning area, the responsible party is required to notify the following:

- National Response Center (NRC): (800) 424-8802
- South Carolina Spill-Reporting Hotline: (888) 481-0125

The 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. 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 and the South Carolina Spill-Reporting Hotline. Refer to 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 1, Shoreline Cleanup Methods, provides guidance on the applicability of various cleanup methods for typical shoreline habitats found in South Carolina. Additional tools to assist responders in establishing cleanup methodologies include:

- Characteristics of Coastal Habitats: Choosing Spill Response Alternatives,
- 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.

When conducted, shoreline surveys should be done systematically because they are crucial components of effective decision-making. Also, repeated surveys may be needed to monitor the effectiveness and effects of ongoing treatment methods (changes in shoreline oiling conditions, as well as natural recovery), so that the need for changes in methodology, additional treatment, or constraints can be evaluated.

NOAA's Shoreline Assessment Manual outlines methods that can be used to plan and conduct shoreline assessments after an oil spill. It also provides considerations that should be incorporated into assessing the effectiveness of the UC's shoreline cleanup decisions. The Shoreline Assessment Job Aid is a supplement to the manual. It contains visual examples of many of the terms you would use during shoreline assessments. In addition to these tools, the NOAA SSC also remains a valuable resource to help coordinate shoreline cleanup assessments and establish shoreline cleanup protocols.

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.

- For Endangered Species Act (ESA) and Essential Fish Habitat (EFH) (for emergency consultations, pre-spill consultations and post-response procedures) see Section 4 of Annex H of the RRT-4 RCP.

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 South Carolina 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, the Fish and Wildlife and Sensitive Environments Plan (FWSEP) located within Annex G of the RRT-6 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 the Consultations Compendium, 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. For more details about wildlife rescue and recovery operations, please refer to the Wildlife Protection And Response Plan, within the Natural Resources Trustees Annex, Annex H of the RRT-4 RCP.

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, within the Natural Resources Trustees Annex, Annex H of the RRT-4 RCP.

5400 National Incident Management System (NIMS)

The LACP 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

The LACP planning area is home to a large expanse of mud flat and marsh systems. These areas are particularly difficult to protectively boom, and every effort should be made to contain and recover the oil before it approaches any of these areas. If the on-water recovery operations are not entirely effective and oil still threatens the marsh areas, intertidal barrier boom may be used to protect the mud flats.

A recommended deployment strategy is as follows: Place intertidal boom along the entire front of the mud flat, with the boom being anchored just offshore of the low –low tide line. In areas where wave entrainment of the boom at high tide is considered to be a problem, place a line of boom across the upper mud flat near enough to the marsh to be away from the threat of wave entrainment. The boom positioned on the mud flat would rest on the flat at low tide and be of the type of construction that would prohibit oil from passing under it on the rising tide. The boom would eventually lift up off the tidal flat surface as the tide continues to rise.

Deployment of this type of boom and its supporting arrangement is extremely labor intensive. It should only be implemented if there is a high probability that oil will reach the marsh areas. It is envisioned that these resources would not be available until equipment began to cascade into the area sometime after the initial response. Other factors to consider for this type of booming are:

- Water body type,
- Water current velocity,
- Water depth,
- Wave height, and
- Shore type.

Generally, sediment berms, dikes and dams will most often be used to protect small coastal inlets or perhaps tidal channels serving wetlands and marshes when these channels are accessible. The object of berms, dikes and dams is to keep oil outside an inlet because there are often abundant natural resources and economically significant areas that use the sheltered waters within.

Occasionally, dikes and dams have been used across a channel to contain the oil within a portion of marsh in order to prevent widespread contamination of other resources. Dikes and dams are not practical when currents are great, waters are deep, and waves are large. Also, beaches with abundant sand are generally the most suitable for building dikes and dams. Berms can be built above the active beach face to prevent oil contamination of high beach during spring tides.

Alternative strategies should be prepared and the necessary supplies and equipment in place should a berm, dike, or dam fail.

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 LACP 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 progresses. 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 located within the RRT-4 Subpart J, Oil Spill Countermeasures.

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 located within the RRT-4 Subpart J, Oil Spill Countermeasures.

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.).

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.

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 South Carolina

South Carolina Department of Environmental Services (SCDES) is the primary agency in the State concerned with environmental policies and regulations as set forth in the South Carolina Revised

Statutes 30:2001 et seq. SCDES responds to all reported unauthorized discharges, emissions, or other releases to the water, air, and soil with the intent of providing protection of these natural resources to maintain a healthful environment for the citizens of the State and serves as SOSC for incidents involving radioactive materials. SCDES has trained all response personnel to the 40-hour Hazardous Waste Operations and Management level for activities relative to oil and hazardous substance releases. In addition to spill response duties, SCDES personnel review industry spill prevention and control plans, assist in oil spill and hazardous substance release drills, and inspect permitted facilities for compliance with applicable rules and regulations pursuant to the South Carolina Environmental Quality Act.
To report incidents involving hazardous materials, call the South Carolina SCDES 24-hour response line **803-898-3432**.

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.

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 Charleston 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 Charleston 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. The Liquid Spillage Control Committee (LSCC) is the cooperative in the Sector Charleston Planning Area.

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 (e.g., booms, skimmers, etc.) will typically be the most widely used response option, there are several other tools available to mitigate oil spills. The NCP directs that Regional Response Teams (RRTs) 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. Links to these policy documents, which are all located on the RRT-4 homepage, can be found in this section.

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 not 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: In general pre-authorization exists three miles seaward of any land providing that the water depth is at least 10 meters deep. Some special management areas are, however, excluded from pre-authorization. Any pre-authorization granted within state's waters will be addressed in a separate Letter of Agreement between the state, The USCG, the EPA, the DOI, and the DOC. There is currently no Letter of Agreement regarding the use of dispersants in the waters of the State of SC

For the most up-to-date policy, procedures, and checklists when conducting a surface dispersant application operation in the offshore environment of the RRT-4 coastal zone please refer to RRT-4 Use of Dispersants. For the most up-to-date policy, procedures, and checklists when conducting an operation in the nearshore environment of the RRT-4 coastal zone (seaward starting at the shoreline, but shoreward of the ten-meter isobath or three nautical miles offshore, whichever is farthest from shore – i.e., shoreward from the area of preauthorization) please refer to RRT-4 Use of Dispersants.

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.

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. SWAs cannot be used unless they are listed on the NCP Product Schedule (see Section 7140 of this document). All use of surface washing agents, will therefore be on a case-by-case basis and reviewed by the incident-specific RRT prior to authorizing any application. The documentation

on pre-spill Endangered Species Act and Essential Fish Habitat consultation with the Services is in 4210. For the most up-to-date policy, procedures and checklists when using SWAs within the RRT-4 coastal zone please refer to RRT-4 Surface Washing Agents (SWAs) Policy located within the RRT-4 Subpart J.

7140 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. 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.

7150 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, Surface Collecting Agents, Bioremediation Agents, and Miscellaneous Oil Spill Control 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.

Lowcountry Area Contingency Plan (LACP)

Contact Spreadsheet

Annex A

May 2022

Record of Changes

Change Number	Change Description	Section Number	Change Date	Name
1				
2				
3				
4				
5				
6				
7				
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10				

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1000 Contact Spreadsheet Introduction

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.

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 A: Contact Spreadsheet.

Lowcountry Area Contingency Plan

Risk Analysis: Area Planning Scenarios

Annex B

January 2022

Record of Changes

Change Number	Change Description	Section Number	Change Date	Name
1				
2				
3				
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1000 Introduction

This annex has been developed by the Federal On-Scene Coordinator (FOSC), in consultation with the Lowcountry 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, an average most probable discharge, a maximum most probable discharge, and a worst case discharge are presented in this annex of the Lowcountry 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 table accounts for discharges that occurred in the area, including notable and substantial oil spills or hazardous substance releases which caused elements of this plan to be implemented.

Date	Location	Source	Product	Amount (bbls)	Responsible Party
October 1995	Charleston Entrance Channel	Vessel	Dioxin-tainted dredge spoils	59,350	F/B PATRICIA SHERIDAN
May 1996	North Charleston Terminal	Vessel	Cyanuric Chloride	N/A	M/V EVER ROYAL
January 1999	20 miles off SC Coast	Vessel	#6 Hydraulic Fuel Oil	762	*M/V STAR EVVIVA
August 2020	Dill Creek/Charleston Harbor	Facility	Diesel Fuel	80	Plum Island Waste Water Treatment Plant

*This spill was found to be the largest maritime oil spill on record for South Carolina

4000 Risk Assessment

The possibility exists for a WCD to occur in the Port of Charleston given the high volume of tank and non-tank vessels and tug/tank barge composites. In addition, the unpredictable and sudden severe weather during transitional seasons, river fog in the winter and afternoon thunderstorms during the summer increase the risk.

4100 Possible Sources

The geographic area covered by this plan contains the commercial ports of Charleston and Georgetown as well as numerous harbors for fishing and recreational vessels. Charleston is the only port in this planning area with significant volumes of oil or hazardous materials moving through the port. Two facilities along the Cooper River handle p-Xylene. Much of the oil moving through the Port of Charleston is in the form of ships' bunkers.

4102 Onshore Facilities/Pipelines/Marine Terminals

The Lowcountry planning area is home to eight fixed facilities and 17 mobile facilities transferring oil and/or hazardous materials in bulk and containers, in addition to numerous marina fueling stations. Onshore fixed oil storage facilities present the greatest potential volume oil spill. A possible WCD scenario is multiple tank failures at an onshore facility during hurricane conditions.

Common products handled at these facilities include unleaded gasoline, diesel fuel, crude oil, palm oil, and p-Xylene.

4103 Vessel Traffic

The largest foreseeable vessel discharge could result from a collision between two vessels.

4300 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.

4400 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 Lowcountry 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 response plan will be implemented.
- A WCD scenario will draw major media and governmental interest.

4500 Meteorological Conditions

The Lowcountry planning area is influenced by a maritime subtropical climate. Tropical cyclones (hurricanes and tropical storms) are severe but infrequent, with the season extending from June 1 through November 30. Most tropical cyclones occur during the typically busier period in the Atlantic basin from August through October. 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. Extreme weather conditions during an actual spill may inhibit aerial surveillance of a slick and oil recovery operations.

4600 Planning Scenarios

Given the applicable conditions described above, the WCD, MMPD, and AMPD volumes from all potential sources is calculated and listed below. The MMPD and the AMPD scenario volume is calculated based on a fixed number established for 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 onshore facility/pipeline/marine terminal is calculated as:

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

Worst Case Discharges for LACP Planning Area **(all transportation modes)**				
FOSC				
Type	**Owner / Operator Vessel / Facility Name**	**Location**	**Amount**	**Product**
MTR Facility	Kinder Morgan – Shipyard River Terminal	North Charleston, SC	122,354 bbl 5,138,873 gal	Oil Products
Pipeline	Defense Fuels	Charleston County, SC	3, 395, 374 barrel-miles	Oil Products
Rail	CSX/Norfolk Southern Corp	Charleston County, SC	12,857 bbl 540,000 gal	Oil Products
Vessel	Oil Tanker	MTR facilities along the Cooper River	302, 783 bbl 12, 716, 886 gal	Oil Products

5100 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 LACP, 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.

5201 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.

5202 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 where 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.

Lowcountry Area Contingency Plan (LACP)

Fish and Wildlife and Sensitive Environments Plan (FWSEP)

Annex C

March 2025

Record of Changes

Change Number	Change Description	Section Number	Change Date	Name
1				
2				
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1000 Introduction

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 Action

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 SEFL 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

3000 Environmental Consultation Requirements

There are three environmental consultation categories:

- Pre-spill Consultation
- Emergency Consultation
- Post-response Consultation

3100 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.

- 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)

3200 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 Services, after the response is initiated.

- State Historic Preservation Office (SHPO) Notification, Coordination and Consultation (Federal/State of Florida Guidance), Annex M.
- Endangered Species Act (ESA) and Essential Fish Habitat (EFH) Form (for emergency consultations, pre-spill consultations and post-response procedures), Site Profile - RRT IV Plans, Policies and Guidance - NRT of the RRT-4 RCP.

3300 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.

In addition to the annexes listed under emergency consultation, the following annexes are also applicable to Endangered Species Act (ESA), Essential Fish Habitat (EFH), or National Historic Preservation Act (NHPA):

- The Wildlife Response Plan, Site Profile - RRT IV Plans, Policies and Guidance - NRT of the RRT-4 RCP.
- The all-inclusive FWSEP/WRP Contact Spreadsheet, see Annex G and Annex H of the RRT-4 RCP.
- All-inclusive Listed Species Spreadsheet, Site Profile - RRT IV Plans, Policies and Guidance - NRT of the RRT-4 RCP.

Lowcountry Area Contingency Plan

Hazardous Substance Response

Annex D

January 2022

Record of Changes

Change Number	Change Description	Section Number	Change Date	Name
1				
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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 LACP users with information specific to responses to hazardous substance releases, including WMD incidents.

Many LCAC member agencies have specific responsibilities during and following a hazardous substance incident, including a WMD or other terrorist act (chemical, biological, or radiological). The LACP 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/county/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 South Carolina Department of Environmental Services

The State of South Carolina Department of Environmental Services (SCDES) responds to all discharge and release incidents. The primary objectives of such a response include the establishment of control regarding the source of a release as well as the containment of any discharged material. Mechanical and other physical control methods are the preferred method for the removal of a substance from the environment. Any removed material is then disposed according to regulations. The use of oil spill cleanup agents is coordinated by the State On-Scene Coordinator (SOSC), FOSC and the EPA. For cases in which the response actions of the Responsible Party (RP) are adequate to remove and mitigate the effects of a release, SCDES primarily monitors the operations and provides counsel as necessary. For cases in which the response of the RP is inadequate, the FOSC or SCDES will take steps to access the applicable state or federal fund to ensure an adequate cleanup.

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
South Carolina	SCEMD	SCEMD	SCEMD	SCEMD	SCEMD
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 suspected, 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 South Carolina

The South Carolina Department of Environmental Services (SCDES) has the responsibility for response and investigation of all chemical emergencies occurring within the state of South Carolina. SCDES is the SOSC for all hazardous substances releases.

To report incidents involving hazardous materials, call the SCDES 24-hour response line **803-898-3432**.

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 6	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
South Carolina State			
National Guard 43rd Civil Support Team	Columbia, SC	(803) 299-2349	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 LCAC'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. 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 LACP serves as the primary response planning document for the federal and state response agencies in the LCAC 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; 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

All unauthorized discharges or releases of pollutants within South Carolina must be immediately reported to the South Carolina Department of Environmental Services (SCDES) 24-hour response line **803-898-3432**. The SOSC is responsible for notification to State Natural Resource Trustees. A complete list of the State Natural Resource Trustees can be found in the South Carolina State Oil Spill Contingency Plan.

4203 Tribal Trustees

Tribes with reservations and/or usual and accustomed hunting or fishing grounds within the state of South Carolina 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 LACP, state, and local regulations. See Annex GG (Disposal) of this plan for South Carolina 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 Lowcountry 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, county, 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 33 CFR - Navigation and Navigable Waters 40 CFR - Protection of the Environment 40 CFR 300 - NCP 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
	DOT Emergency Response Guidebook (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 USAMRIID Medical Management of Biological Casualties Textbook of Military Medicine (TMM) Defense against Toxin Weapons Manual	http://www.usamriid.army.mil/education/instruct.htm

Lowcountry Area Contingency Plan (LACP)

Planning and Response Tools

Annex F

May 2024

Record of Changes

Change Number	Change Description	Part Number	Change Date	Name
1				
2				
3				
4				
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1000 Introduction

Planning and Response Tools, contains 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. In addition to this brief overview, the accompanying spreadsheet provides a central repository for numerous tools to support personnel in planning for or responding to an oil discharge or hazardous substance release within the SEFL ACP planning area. To maximize efficiency, all tools are hyperlinked and incorporated by reference into this ACP.

2000 Purpose

Incidents involving oil and hazardous substances require planning and response personnel to mobilize resources and develop objectives, strategies, and tactics to mitigate the impact to the community and environment. Planning and response operations involve many tools, which will inform decision makers on the next course of action. The magnitude of the incident, environmental conditions, and discharge/release status are just a few of the factors one must consider before selecting the appropriate combination of tools to use.

Additionally, to be successful in the mitigation of oil discharges and hazardous substance releases, emergency preparedness and planning activities must take place well in advance of an incident. There are many tools for responders including training opportunities, lessons learned from previous incidents and exercises, and education on relevant policy and procedures.

3000 Scope

In the accompanying spreadsheet, you will find some of the tools and other resources available to assist emergency planners and responders in their development of preparedness initiatives, response objectives, strategies, and tactics. This list, while extensive, is not all inclusive.

Beside the name of each tool (***hyperlinked as appropriate***) on the spreadsheet, you will find a brief description, purpose, and requirements for use of the tool. Some tools [***denoted with an asterisk (*)***] will require a username, password, and periodic log-in for continuous use. 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. The following is a link to the Planning and Response Tools Excel Spreadsheet which is housed on the RRT-4 website.

Lowcountry Area Contingency Plan (LACP)

Response Protocols: Volunteers

Annex G

January 2022

Record of Changes

Change Number	Change Description	Section Number	Change Date	Name
1				
2				
3				
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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 Incident Commander/Unified Command (IC/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 are listed the 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 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 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) outlines 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 South Carolina Volunteer Coordinators

South Carolina Volunteers Active in Disasters (SCVOAD)
Central Carolina Community Foundation-
One SC
2142 Boyce Street, Suite 402
Columbia, SC 29201
Home | South Carolina VOAD

Contact: Senior Disaster Program Manager
Phone: (225) 342-2038
Email: scvoadinfo@gmail.com

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 Public Information Officer (PIO) or Joint Information Center (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?

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

Supervisor Signature: _____

Lowcountry Area Contingency Plan (LACP)

Natural Disaster Response Plan

Annex H

January 2022

Record of Changes

Change Number	Change Description	Section Number	Change Date	Name
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Table of Contents

1000 Introduction

Oil and chemical production and storage facilities in South Carolina are susceptible to dangerous hurricanes and severe weather. More than 30 hurricanes have passed close to the South Carolina coastal zone in the last century, causing severe damage from wind and storm surge. On average, a tropical storm or hurricane is expected to strike somewhere along South Carolina's coast about once a year. South Carolina's flat coastal zone makes tropical storms and hurricanes especially dangerous. Storm surge pushed by an approaching hurricane can reach heights of more than 20 feet and spread far inland, devastating anything in its path. After a hurricane, access to most of South Carolina is very difficult as the roads and supporting infrastructure are either flooded or destroyed by the storm. High water, waterways closures, and obstructions, in what were deemed as safe navigable waters prior to the hurricane, eliminate many conventional transportation methods.

Unlike most oil discharges and chemical releases, where there is a single point source at one location from which the spill spreads, the pollution associated with hurricanes and tropical storms are usually widespread. In addition to pollution from production facilities, oil storage tanks, and pipelines, there will typically be smaller discharges of refined oil products such as diesel fuel and gasoline from fishing vessels, recreational boats, small fuel storage tanks, as well as trucks and automobiles. In addition to the massive amounts of oil spilled, the total destruction caused by a storm can leave thousands of containers of industrial hazardous materials and household hazardous waste dispersed throughout the area.

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). However, the NCP should not get lost in the shuffle of the massive federal, state and local response associated with the full implementation of the NRF.

One of the most essential keys to successfully responding to a natural disaster is effective management of large amounts of discrete pollution targets at one time. Incident management teams must ensure that the data management tools selected can be continuously changed or updated to suit the dynamic information needs of the response and be scalable.

2000 Funding Authorities

2100 FEMA Mission Assignments

When a natural disaster is of such magnitude that a State government’s resources are overwhelmed, the State may request Federal response assistance to supplement ongoing disaster relief activities. The reimbursement of Federal agency expended funds in support of Federal Emergency Management Agency (FEMA) disaster relief efforts is permitted when support is provided under a Mission Assignment (MA). A MA is a work order issued to a Federal agency by FEMA directing the completion of a specific task, and citing funding, management controls, and guidance. Although most agencies assigned a MA will be reimbursed for their efforts, the possibility exists under the Stafford Act that FEMA can task agencies without expectation of reimbursement. MAs are directives issued by FEMA; they are not contracts or Inter-Agency Agreements (IAAs) but they are an agreement between FEMA and the responding agencies. In most cases, MAs are issued

only for assistance under the Stafford Act, not for assistance provided that would normally fall under an agency's independent authorities or responsibilities. For example, the Coast Guard would not receive an MA for search and rescue activities conducted offshore after a hurricane because this would be a mission conducted under the Coast Guard's statutory authority.

MAs are typically assigned by FEMA to address actions required under one of the 15 different Emergency Support Functions (ESFs) described in the NRF. The NRF establishes a comprehensive all-hazards approach to enhance the ability of the Federal government to manage domestic incidents. Consequently, the ESFs are categorized around the major response and recovery functions associated with an incident, such as ESF 1 – Transportation, ESF 9 – Search and Rescue, and ESF 10 – Oil and Hazardous Materials. The Coast Guard has primary for ESF 9 and ESF 10 in the Coastal Zone. Therefore, the Coast Guard may receive tasking by FEMA under several MAs for different ESFs; e.g. an air station launches a helicopter to provide damage assessments for FEMA (ESF-5 Emergency Management) and launches a second helicopter to provide transportation (ESF-7 Logistics Management and Resource Support) for disaster personnel and supplies.

2200 Oil Spill Liability Trust Fund

The (OSLTF) pays for removal costs and damages resulting from oil spills or substantial threats of oil spills to navigable waters of the United States. The OSLTF is used for costs not directly paid by the polluter, referred to as the responsible party (RP). The fund is also used to pay, costs to respond to "mystery spills," for which the source has not been identified. Since mystery spills are anticipated before a storm impacts the Lowcountry, it's likely the FOSC will have a relatively small OSLTF funding stream open to get contracted resources deployed as quickly possible after the storm passes. The ceiling limit on this OSLTF project will vary depending on the needs of the response and how soon a mission assignment can be issued to take over the costs. It's likely that responsible parties, natural resource trustees and other third parties will submit claims against the OSLTF after the storm.

2300 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

CERCLA enables Federal agencies to respond immediately to hazardous substance releases and contamination problems that pose a threat to public health and the environment. Removal costs are recovered from the RP(s) by EPA. Post-storm, the threat to public health will be prevalent as citizens return to their parishes after the flooded and impacted areas are accessible, and orphaned containers have been deposited in yards, schools and playgrounds, places of employment, and various other locations easily accessible to the general population. Threats to the environment exist when orphaned containers are deposited into the wetlands, wildlife refuges, and many other sensitive ecosystems. Additional threats include releases from chemical facilities, chemical transfer facilities, and various other facilities that use, produce, transport, or have a supply of hazardous substances. The Superfund was designed to address discrete incidents and not multiple chemical releases across a large region. Hence, the full impact of hazardous substances to the public and the environment cannot be ascertained in totality with limited CERCLA funding. For HAZMAT, an ESF-10 mission assignment is ***critical*** to completing a comprehensive needs

assessment and mitigating all actual and potential releases of hazardous substances that are an imminent and substantial threat to the coastal zone.

The highest priority HAZMAT targets will be those that are actively leaking, an imminent threat to public health or welfare and/or have actual or potential impact to navigable waterway. Where the responsible parties are known, an effort initially shall be made, to the extent practicable, to determine whether they can and will perform the necessary removal action promptly and properly.

3000 ICS Positions

Oil and hazardous material data needs to be collected into a central response database in order to track all targets for prioritization, management of resources and situational awareness. The following positions play a critical role in the collection and dissemination of target data for operational decision making.

3100 Operations Section

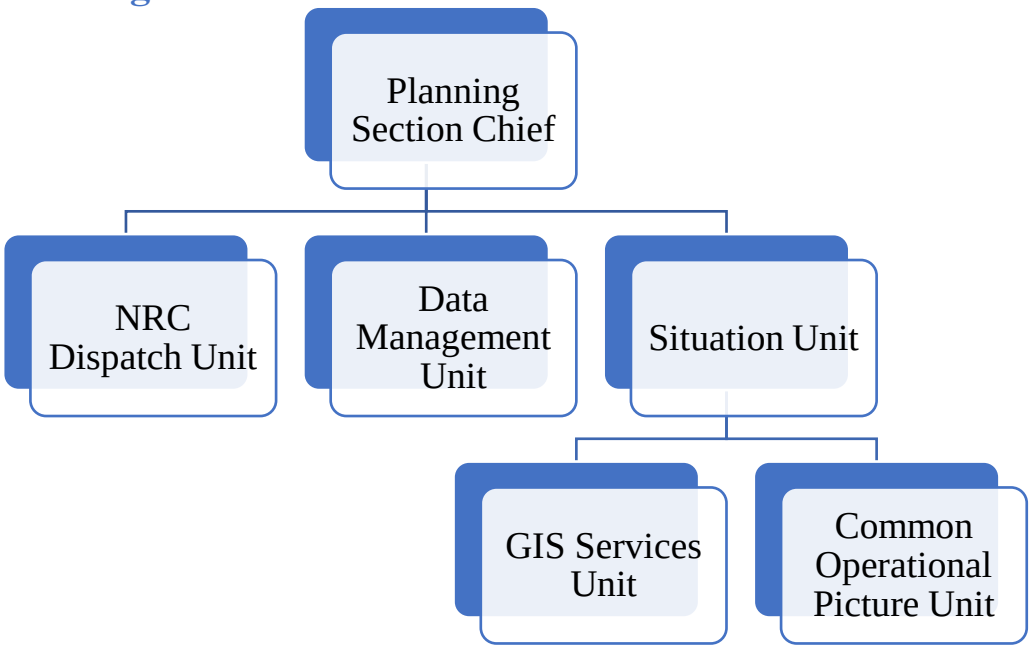
3101 Hazard Evaluation Group (HEG)/Branch.

The Hazard Evaluation Group (HEG)/Branch evaluates the impacted areas to determine the magnitude of the event, map the geographical boundaries of the event, and identify immediate threats to public health and the environment during the initial phase of a response. The HEG/Branch will determine the most heavily impacted areas, assess critical infrastructure (e.g. public water supplies and wastewater treatment facilities) and facilities for damage. Any active releases and discharges will be reported back to command as quickly as practicable. A secondary function is to identify locations for Incident Command Post (ICP), Forward Operating Bases (FOB) and determine operational challenges (roadways destroyed and areas of flooding, etc). Once the initial assessments are complete, the HEG conducts detailed evaluation and documentation of oil and hazardous material targets to direct ground forces and determine operational requirements. As the response dictates, HEG members will merge with other Operation Section branches or transition to SCAT teams in the Environmental Unit to utilize their situational knowledge.

3102 Oil/Hazmat Groups

The Oil/Hazmat Groups are responsible for ensuring that oil discharges and hazmat releases are properly mitigated and/or recovered. Each group will have their own supervisor.

3200 Planning Section



3201 NRC Dispatch Unit

The NRC Dispatch Unit (NRC Dispatch) is located within the Planning Section and works in close coordination with the Data Management Unit (DMU). The NRC Dispatch is responsible for monitoring the NRC inbox and conducting initial investigations on all reported discharges/releases reported via the NRC. After investigation, the NRC will prioritize the targets and refer the information to the DMU for further clarification/prioritization. Sources of information outside Operations Section (Command Center, SCAT, entities outside official response, etc.), will debrief with the NRC Dispatch Unit and NRC Dispatch Unit will ensure all information is reported to the NRC (1-800-424-8802). The NRC Dispatch may encourage secondary reporters to call/report to the NRC; however, the ultimate responsibility lies with the NRC Dispatch Unit. The NRC Dispatch Unit will debrief with all sources of information outside Operations Section and conduct data entry into the response database. The NRC Dispatch Unit will be staffed with Coast Guard members. These members must be proficient in data entry as well as competent in performing thorough initial investigations.

3202 Data Management Unit (DMU)

The Data Management Unit (DMU) is within the Planning Section and is responsible for compiling data submitted by field teams, disseminating information to end users, generating reports and overall management of the response database. The Data Management Unit is not responsible for data entry or primary Quality Assurance and Quality Control (QA/QC).

The Operations Section and NRC Dispatch Unit must take ownership over data entry and work with the Data Management Unit to ensure their work is being captured correctly. When the DMU receives information of new oil and hazardous material targets/threats, the information will also be referred to the NRC Dispatch Unit for proper reporting. Operations Section will have several DMU members attached to them to ensure field personnel properly input data and QA/QC is conducted prior to submission to DMU.

The DMU will work hours similar to Operation Section to ensure cohesive flow of data from field to the SOD, some offsetting of hours may be necessary to avoid burnout and optimize usage of man hours. When down time exists, cooperation with NRC Dispatch Unit should occur.

3203 Geographic Information System (GIS) Services Unit (GSU)

The Geographic Information Systems (GIS) Services Unit (GSU) is subordinate to Situation Unit (SIT) and provides mapping services, such as generating maps for field teams, supplying the Common Operational Picture (COP) and managing GPS/photographic data from field teams. GSU will be staffed by two NOAA GIS technicians and at least one USCG person with familiarity with GIS and/or COP. The GSU Leader and Assistant will work 1200 to 2400 to handle the data flow. The NOAA member of DMU can handle GIS demands during morning hours. The COP Manager will work similar hours to Situation Unit Leader and support the proper usage of the COP during briefings.

3204 Display Processor (DPRO)

The Display Processor (DPRO) is subordinate to the Situation Unit Leader (SITL) and manages incident status information obtain from FOBS, resource status reports, photographs, videos and other imagery. Provides the overall Common Operational Picture by developing required displays in accordance with time limits for completion. This includes GIS information, demographic information, incident projection data, etc.

3205 Other Units

Other Units that can contribute valuable field data to the response (i.e. SCAT, Wildlife, and NGO's) should work directly with the NRC Dispatch Unit to ensure proper inputting/updating of data. The NRC Dispatch Unit will ensure that submissions are incorporated into the response database by the Data Management Unit. These other contributors should not go directly to the DMU.

4000 Data Management Plan

4100 Summary

The pollution response component of a natural disaster response presents a set of challenges unlike other pollution responses. The pollution threats are numerous and spread over a large geographic area. The multitude of pollution targets can be from a variety of sources, including wellheads, facilities, orphan containers or vessels. Effective data management is critical during a multi-target response in order to ensure appropriate use of resources. The following document is to help ensure the success of data management during a natural disaster response.

4200 Procedures for Field Data Documentation

Field documentation is critical for the success of any response, either for a single barrel of oil being discharged by a vessel or for a large scale Type 1 incident. The command cannot make sound decisions without sound data flowing from the field. To that end, the field personnel are responsible for ensuring quality data is being captured in the field.

4201 Data Fields and Valid Values

Data fields are the pre-determined pieces of information that the response wants to capture and valid values are the acceptable inputs for those data fields. Agreement on the data fields and their valid values are critical to ensure the response is getting the data it needs to make decisions. Once an agreement is reached, the field data collection forms, response database and other deliverables are created to meet the needs of the response. The data fields and valid values discussed within this plan are considered a minimum description of oil and hazardous material target and does not alleviate the need for traditional investigation, SCAT, reporting to NRC and required documentation of a target. The data fields, valid values and resulting products are intended to capture baseline data for Unified Command and Operations Section to properly manage their resources and mitigate oil and hazardous material threats during a post-natural disaster response with multiple targets.

4202 Unique Identifier

A unique identifier is an alpha-numeric label identifying a particular target for tracking purposes. The NRC number usually plays this role, but during a post-natural disaster response, an NRC number might not be immediately available. As a gap fill, a temporary unique identifier for each target may be assigned in the following format: YYYYMMDD_Team Name_Daily Number. For example: 20211006_HEG2_002 = the second target found by HEG Team 2 on Oct 06, 2021.

The unique identifier should not change over time and should not change as teams subsequently visit the same target. After the first assessment, if a team goes back out or the item is mitigated they should be referencing the unique identifier. For continuity and ease of identification, if field teams can, they should mark the target (with a sticker, hanging tag or spray paint) so that any team visiting the target will know that this target was previously assessed and has been assigned a unique identifier. When a target's unique identifier changes from the temporary unique identifier to the primary NRC number, this update should be reflected on the labeling of the target itself. The temporary unique identifier, primary NRC number and secondary NRC number(s) will be listed in the database for cross reference purposes.

4203 Latitude and Longitude

Obtain a latitude/longitude point with a satellite enabled GPS unit for observed discharges or releases at facilities, vessels or other sources. If the oil and hazardous material target covers an area (not a single point location) obtain lat/long points that outline the target. Documentation needs latitude/longitude to 5 decimal points. The safest location for observing an oil and hazardous material target is upwind.

All personnel must verify all lat/long position data by comparing observations against satellite imagery by means of GIS application (Google Earth, ERMA, EnterpriseGIS, SONRIS, Response

Manager, etc.). This step, when combined with data entry, is time consuming and field personnel should return to ICP/FOB early enough in day to ensure sufficient time is dedicated to data entry and quality assurance/quality control.

4204 Photo Documentation

Prior to departure to field, ensure that camera is set to local time and spare batteries are available. A clear photo of GPS unit with the time (in 24-hr, hh:mm:ss format) taken at the beginning of operations will allow for geo-referencing of photos.

It is more important to take a few good photos instead of many useless photos. Utilization of photo scales, recognizable landmarks and "the rule of thirds" will help ensure photos are useful to an audience that is crammed in a command post or is not on-scene.

4205 Aerial Team Procedures

The Aerial Team could consist of a Rapid Needs Assessment Task Force or a Hazard Evaluation Group Task Force. Aerial Assessment Teams are not expected to conduct detailed documentation of targets, but are expected to capture critical data for decision makers. A special form with limited data entry has been created to reduce the data collection requirements and expedite the assessment process. Data that aerial assessment teams will be capturing are primarily nature of oil versus hazardous material, source, location, and size of affected area.

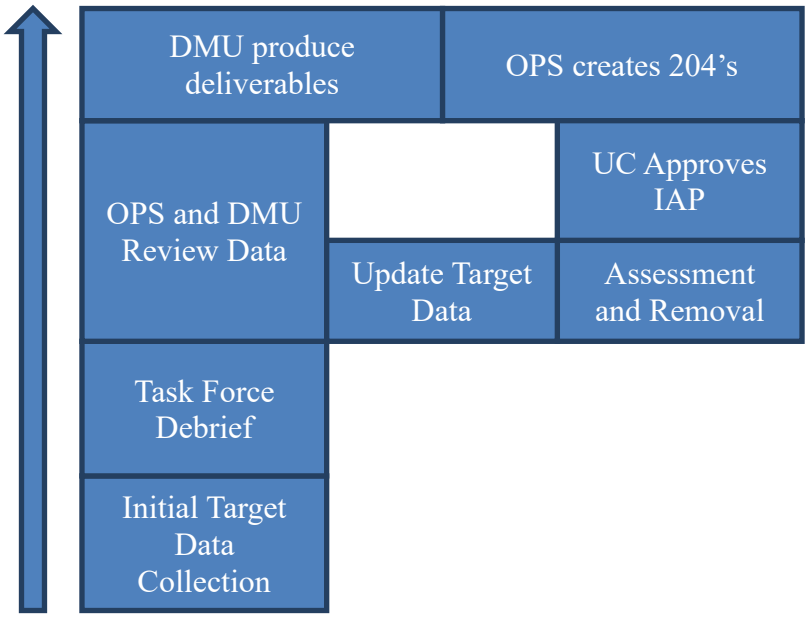
4206 Surface Team Procedures

The Surface Assessment Team (ground and/or water) and other group task forces will conduct more detailed documentation and complete a more thorough field data collection process because ground assets generally travel slower and have more time to make detailed observations. The field data collection forms will contain most all the data fields.

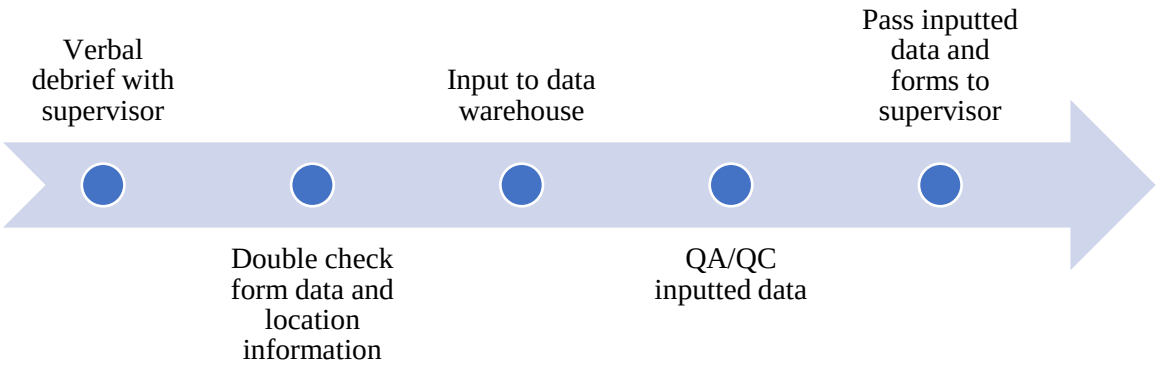
4207 Procedures for Processing Field Data

The most challenging aspect of data processing is ensuring that the incoming data is of high quality. In order to overcome this challenge, it has to be emphasized to field personnel the importance of thorough observations and proper documentation. The quality of the incoming data will directly affect the quality of the deliverables that the Unified Command, Section Chiefs and other decision makers will be using to manage the response. The illustrations below illustrate the general flow of data from the field to decision makers. Refer to the diagram below.

4300 Data Flow



4301 Task Forces Debrief



Task Forces are the eyes and ears in the field for the response and collect invaluable data not only about targets, but also about operational challenges and recommendations. This acquired knowledge needs to be debriefed to their respective supervisor and inputted into the response database for processing. The team leader is responsible for initial data entry and initial QA/QC of data because they are the experts about their own field observations. Generally, the team leader is the most experienced member of the team.

4400 Data Fields and Valid Values

The following table describes the data fields suggested. The data fields and valid values in this table define the jargon utilized during the response to ensure clear communication. The response database and associated forms are built around these data fields and valid values. The data fields and valid values establish a minimum description of a target and DOES NOT alleviate the need for traditional investigation, SCAT, reporting to NRC and required documentation of a target. These data fields, valid values and resulting products are intended to capture minimum data for Unified Command to properly manage their resources and mitigate pollution threats during a post-natural disaster response with multiple pollution targets.

Data Field	Format	Valid Values
Date Initially Assessed	YYYYMMDD	Date that target was first discovered
Field Team Initially Assessed	AAA0	Three letters and one number – the field team which discovered target
Daily Number	Three digit number	000 to 999, resets each day for each team
Date Updated	YYYYMMDD	Date that entry to spreadsheet is modified, this will allow for tracking the timeline of changes to target information
Field Team Updated	AAA0	Three letters and one number – tracking which field team has provided updated information about target
Location Name	BLANK CREEK	Waterway, street, landmark, etc
Responsible Party	BLANK ENERGY	When known
Target Latitude	DD.DDDDDD	Positive Number, 0 to 90
Target Longitude	DD.DDDDDD	Negative Number, 0 to 180
Grid	A00	One letter and two numbers
Hazardous Category **Not explicitly in form**	OIL or HAZ	To delineate for OPS
HAZ Type **Only for HAZ targets (CERCLA)**	Three letter code	DRM = Drum CYL = Cylinder TOT = Tote BCK = Bucket TNK = Tank FAC = Facility **DBL = Debris Line (not a single target)**
HAZ Count **Only for HAZ targets (CERCLA)**	Number	Number, or approximate number, of HAZ targets within a debris field or contained within the specified target

Data Field	Format	Valid Values
Oil Type **Only for oil targets (OPA 90)**	Three letter code	VSL = Vessel PPL = Pipeline FAC = Facility WHD = Wellhead SHN = Sheen UNK = Unknown, Mystery Source
% Coverage **Only for oil targets (OPA 90)**	Percentage of area being covered by product	Percentage of oil within the given length, width
Length **For 2D targets**	Number in feet	For debris fields and oil targets
Width **For 2D targets**	Number in Feet	For debris field and oil targets
Capacity	Number in Gallons	5, 55, 250, 1000, UNK, Worst Case Discharge
Discharge/Release Amount	Number in Gallons, lbs, cubic meters **1 Oil Barrel = 42 US gallons**	50, 100, 10000, UNK – units of measure need to be noted!
Condition	Three letter code	DNO = Damage-No Discharge/Release DDR = Damaged-discharge/release NOD = No damage FIR = Fire EMG = Emergency UNK = Unknown

Data Field	Format	Valid Values
Status	Three letter code Color designation is for target maps	RED FAR = Further Assessment Required RP = Requires RP action SOP = Requires Special Ops YELLOW MIT = Mitigation underway RDY = Ready for stakeholder site visit and sign off GREEN INF = Item not found REF = Refer to other agency (and agency is noted in comments) LIP = leave in place and no further action NFA = No Further Action REM = Removed and brought to pad RRP = Removed by RP DIS = Disposed SGN = closed by stakeholder site visit and sign off
Concurrence	Drop-down	*No Concurrence (No Sign-off)* *No Further Action (Signed-off)* *Referred to Regulatory Agency (Signed-off)* *Unfounded (Signed-off)*
Concurrence Note	Comment Box	Notes about concurrence
Action Taken	Text Box	Details to support the chosen STATUS
Recommendations	Text Box	Recommendation for mitigation
Resource Needs	Text Box	Supporting the recommendations
Comments	Text Box	Catch all for other data
Photographs	Text Box	For listing the names of photographs associated with target
Primary NRC Number	123456	This should have only one value and used as the primary NRC number
Support NRC Number(s)	123456	This is a listing of other NRC numbers associated with this one target i.e. 123456. 234567, 345678, 987654

5000 Surface Hazard Evaluation Form

Field Team: Date (YYYYMMDD):		TIME - 24hr Format Start:	End:
Evaluation by: Foot / Boat / Airboat / Helicopter / Plane		Weather: Sun / Cloud / Fog / Rain / Snow / Windy	
Start Latitude:		Start Longitude:	
End Latitude:		End Longitude:	
Name	Organization	Phone	
Unique Identifier: *(i.e. 20130801_HEB1_002)*			
Date (YYYYMMDD):	**Team Name (ABC#)**	**Daily Seq Number:**	
Latitude (dd.dddddd):		Grid:	
Longitude (dd.dddddd):		Responsible Party:	
Location Description: Capacity: gallons/lbs/cubic meters		**HAZ Type:** **HAZ Count:**	**Oil Type:** **% Coverage:**
Discharge/Release Amount: gallons/lbs/cu m		Length: feet	Width: feet
Condition:		Status	
Action Taken:			
Recommendations:		Resource Needs:	
Comments:		Photographs:	
Primary NRC:		Support NRC:	
Unique Identifier: *(i.e. 20130801_HEB1_002)*			
Date (YYYYMMDD):	**Team Name (ABC#)**	**Daily Seq Number:**	
Latitude (dd.dddddd):		Grid:	
Longitude (dd.dddddd):		Responsible Party:	
Location Description: Capacity: gallons/lbs/cu m		**HAZ Type:** **HAZ Count:**	**Oil Type:** **Oil % Distr:**
Discharge/Release Amount: gallons/lbs/cu m		Length: feet	Width: feet
Condition:		Status	
Action Taken:			
Recommendations:		Resource Needs:	
Comments:		Photographs:	
Primary NRC:		Support NRC:	

6000 Aerial Hazard Evaluation Form

Field Team: Date (YYYYMMDD):		TIME - 24hr Format Start:	End:
Evaluation by: Foot / Boat / Airboat / Helicopter / Plane		Weather: Sun / Cloud / Fog / Rain / Snow / Windy	
Start Latitude:		Start Longitude:	
End Latitude:		End Longitude:	
Name	Organization	Phone	
Unique Identifier: *(i.e. 20130801_HEB1_002)*			
Date (YYYYMMDD):	**Team Name (ABC#)**	**Daily Seq Number:**	
Latitude (dd.dddddd):		Grid:	
Longitude (dd.dddddd):		Responsible Party:	
Location Description:		**HAZ Type:**	**Oil Type:**
		HAZ Count:	**% Coverage:**
Capacity: gallons/lbs/cu m			
Discharge/ReleaseAmount: gallons/lbs/etc		Length: feet	Width: feet
Condition:		Status	
Action Taken:			
Recommendations:		Resource Needs:	
Comments:		Photographs:	
Primary NRC:		Support NRC:	
Unique Identifier: *(i.e. 20130801_HEB1_002)*			
Date (YYYYMMDD):	**Team Name (ABC#)**	**Daily Seq Number:**	
Latitude (dd.dddddd):		Grid:	
Longitude (dd.dddddd):		Responsible Party:	
Location Description:		**HAZ Type:**	**Oil Type:**
		HAZ Count:	**Oil % Distr:**
Capacity: gallons/lbs/cu m			
Discharge/Release Amount: gallons/lbs/cu m		Length: feet	Width: feet
Condition:		Status	
Action Taken:			
Recommendations:		Resource Needs:	
Comments:		Photographs:	
Primary NRC:		Support NRC:	

7000 Operational Strategy for Oil Releases

7100 Marsh Operations Plan

Aggressive cleanup of free product releases in marshes may actually cause greater long-term damage than the pollutant itself. Any physical cleanup activities in marsh areas must comply with the following items to prevent unacceptably high collateral damage to marsh vegetation and entrainment or entrapment of oil product into sediments:

- Any foot traffic access to the marshes shall avoid oiled grasses and sediments and utilize one-way-in and one-way-out traffic with walking boards in travel lanes and crosswalks on the marsh.
- All treatment operations in the marshes will be done on the walking boards, without direct foot traffic in the marsh. Walking boards should not be placed in un-oiled marsh areas or landward of the oiled wrack line, and no foot traffic or other entry by response personnel or equipment should occur in these un-oiled areas unless approved by the Unified Command.
- All vessel approaches to the marshes shall be limited to grounding the bow of the vessel on the fringe of the marsh, avoiding landing directly on top of the marsh grasses as much as possible.
- Water channels shall be used for navigation through the marshes. Under no circumstances shall vessels run over the top of or across the marsh grasses. Stopping or landing a vessel on top of the marshes is prohibited.

Sorbent boom should be staked along the front edge of oiled marsh for passive recovery of sheens. These sorbents must be inspected and replaced routinely. Best professional judgment by the Environmental Unit should be used to determine if further treatment or cleanup would provide net environmental benefit or might delay, rather than accelerate, recovery of the vegetation. This judgment should be based on fact, past studies or data from previous oil spills.

Oiled vegetative wrack at the water's edge can be manually picked up and removed with hand tools such as shovels, rakes, and pitchforks. Wrack in the marsh interior should not be removed, even near the source, unless heavily oiled with the potential to cause sheen or substantial contact risk to wildlife.

Pooled oil in areas that are difficult to access because of water depth may potentially be collected from a shallow skiff or airboat by using sorbent pads or vacuum systems with duck bills or other applicable and approved methods.

Low-pressure, high-volume flushing can be utilized by operations to mobilize oil from marsh and into a containment boom with sorbent tubes and/or collection system. The Environmental Unit is to be notified if this technique is desirable and to be utilized.

Cleanup is expected to progress in three phases:

Phase 1 – Source Control and Removal Phase that focuses on containment, recovery of mobile oil, and initial shoreline cleanup (e.g., bulk oil removal/gross decontamination).

Phase 2 – Managed Recovery Phase that consists of any final cleanup activities to mitigate residual pollution. The Managed Recovery Phase would typically include oil recovery using sorbent

booms, demobilization and cleaning of equipment no longer needed, and final disposal issues. Although generally reduced, the Managed Recovery Phase still requires Federal and State oversight to ensure that all threats to the environment, as well as, public health and safety are minimized.

Phase 3 – Natural recovery and restoration. No additional cleanup or active mitigation is required. Once any and all remaining booms, sorbents, cleanup materials, and response waste (if any) has been removed, the site will be left for natural recovery and closure and sign-off procedures will be implemented.

The overall cleanup objective is to minimize or eliminate threats to wildlife and natural resources while avoiding doing more harm than good. Site-specific guidance for each cleanup division grid may be generated by the Environmental Unit.

The defined cleanup criteria may not be applicable (or even achievable) at all sites. Best professional judgment and the consensus of the Environmental Unit should be used to assess when the cleanup meets the above objectives. There may be additional requirements defined by private landowners or municipal managers, and such requirements may be outside the scope of the Unified Command.

8000 Operational Strategy for Orphaned Containers

8100 Summary

As a result of a natural disaster, the South Carolina coastal zone can be littered with numerous drums, cylinders, tanks, and other containers that contain crude oil, refined petroleum products, chemicals and other hazardous materials (HAZMAT). Many of these items are stranded in and adjacent to residential communities, but many others are stranded in adjacent coastal habitats that are accessed and utilized by the public. Most of these items are classified as orphaned, or abandoned, and are a threat to public health and safety because of the potential for direct exposure or secondary contamination. Additional concerns include the unknown nature of many of the contents. Changing weather conditions or exposure to fires may cause releases that would result in increased public risk and possible need for evacuations.

To mitigate the threat posed by orphaned drums and hazardous materials, field operations will include a wide range of response activities and techniques. Because of the geographic extent of operations, the development of Forward Operating Base(s) may be essential to enhancing operational effectiveness. The goal of all recovery operations will be to minimize the risk to the public, and the responders, while minimizing the environmental impact of the response operations overall. Any orphan container that can be accessed by field response teams would also be accessible to the public and therefore constitutes a potential threat to public health and safety.

8200 Response Phases

There are several phases to the orphaned drum and hazardous material container removal project: Assessment, Investigation, Operational Planning, Oil/Hazardous Material Removal and Disposal.

8201 Assessment
This includes ground and aerial surveillance using small boats, airboats, airplanes and helicopters to identify and chart suspected threats. Aerial photographs will be correlated with recorded GPS overflight track lines for mapping and display in ERMA. Identified hazardous material and oil pollution related debris will be classified as drum, tank, cylinder, container, or other and prioritized by: no damage, damaged no spill, damaged leaking, or could not discern. The reconnaissance information will be used to develop situational awareness as to the scope of the problem and to direct future field activities.

8202 Investigations
This phase relates to large orphan containers that have a known and viable industry owner. One objective of the investigation process is to attempt to contact the suspected owner to coordinate removal and any required pollution response under the owner's funding.

8203 Operational Planning
This phase includes charting suspected targets using a GIS system, development of operational tactics, and any required natural resource trustee consultations. Technical experts and appropriate spill response guides such as the Emergency Response Guide (ERG), Safety Data Sheets (SDSs), Chemical Hazards Response Information System (CHRIS), and Computer-Aided Management of Emergency Operations (CAMEO) reference resources should be consulted during operational planning to ensure a safe and properly mitigated response.

Actual oil or hazardous material removal will be conducted in a safe manner. Based on mitigation options available, consideration will be given to that which results in the least environmental impact, i.e., "do no more harm than good."

8300 Preferred Response Options
8301 Leaking Container
Container is leaking and there is an observable spill of oil/hazardous material:

1) Non-Oil/HAZMAT responders should only function in the First Responder role – identify threat, secure area with caution tape, and notify appropriate response team for technical support.
2) Secure leak if it can be done safely.
3) Mitigate and recover spilled material using appropriate technology and qualified Oil/HAZMAT personnel.
4) Remove gross environmental contamination using appropriate technology.
5) Recover contents by a transfer to drum or other temporary storage container.
6) Recover lightered, partially evacuated, or partially empty container to remove threat of residual Oil/HAZMAT contents.
7) Leave lightered, partially evacuated, or partially empty container in place if removal would create unacceptable habitat damage. Ensure the container is properly cleaned, marked and documented if left.

8302 Damaged Container (not leaking)

Container is damaged, but not leaking:

1) For damaged drums and smaller containers, consider over-packing and removal.
2) Recover contents by transfer to a drum or other temporary storage container.
3) Recover lightered, partially evacuated, or partially empty container to remove threat of residual Oil/HAZMAT contents.
4) Leave lightered, partially evacuated, or partially empty container in place if removal would create unacceptable habitat injury. Ensure the container is properly cleaned, marked and documented if left in the environment.

8303 Undamaged Container

Container is undamaged and structurally sound:

1) Recover the container intact and transport to staging area for disposition if feasible.
2) Recover contents by transfer to a drum or other temporary storage container.
3) Recover lightered, partially evacuated, or partially empty container to remove threat of residual Oil/HAZMAT contents.
4) Leave lightered, partially evacuated, or partially empty container in place if removal would create unacceptable habitat injury.
5) Consider leaving container and contents in place if inaccessible or access with heavy equipment would result in unacceptable habit damage relative to Oil/HAZMAT risk. Ensure the container is properly cleaned, marked and documented if left.

Because of the variability in habitat and accessibility, each container or accumulations of orphan containers along a debris line might require a unique recovery project using a different assemblage of field equipment. Hazardous Household Waste (HHW) may be recovered by orphaned drum and orphan container recovery teams at sites where field activities are being conducted.

Disposal for the field component of this operation is limited to transferring the material to one of the established disposal staging areas. Final disposal of collected Oil/HAZMAT debris is outside of the scope of this document. As previously stated, all orphan containers that pose a risk to public health and safety will be removed unless the risk for habitat damage exceeds the benefit of removal.

9000 End Points for Oil and Orphaned Containers

9100 Summary

These guidelines establish target endpoints for cleanup operations for pollution targets, including free product release and containerized product. Because all releases are unique and present distinct cleanup challenges, these endpoints may be amended to address as yet unforeseen circumstances and do not constitute shoreline restoration or full recovery criteria, which may be addressed through a longer-term process. These endpoints define the conclusion of cleanup operations while attempting to minimize overall impact (including those from operations) to sensitive resources.

9200 End Point Criteria for Oil

- Oiled shorelines shall be free of recoverable product and not produce continuous sheen under normal weather and tidal conditions.
- There shall be no recoverable oiled debris.
- Oil stain or sporadic coat on vegetation and large immobile debris that does not produce continuous sheen and is not a contact risk to wildlife may be allowed to weather and degrade naturally. If the decision is to allow oil stain or sporadic coat to degrade naturally, monitoring of the area must occur.
- Oil stain or coat may still be present if best professional judgment of the Environmental Unit Leader (as defined below) determines that further recovery will not produce environmental benefit. Such residual oiling would be allowed to degrade naturally. If the decision is to allow oil stain or coat to degrade naturally, monitoring of the area must occur.

9300 End Point Criteria for Containers

- An orphan container that poses actual or potential imminent or substantial threat to a navigable waterway will be removed, unless removal will cause undue harm to sensitive resources as is determined by the Environmental Unit Leader, using best professional judgment.
- Leaving an orphan container in place will be determined on a case-by-case basis to ensure net environmental benefit and shall be properly cleaned and identified, including documented coordinates.
- Responsible Party is identified and assumes responsibility for removal.

9400 Target Closure

A joint site visit or an administrative review by Unified Command will be acceptable for Target closure. A joint site visit shall be made by an assessment team consisting of representatives of the Unified Command, natural resource trustees and, when possible, a parish representative. Incident-specific cleanup assessment and inspection forms will be generated to track progress. The FOSC and SOSC will sign off each target as having met the endpoints based upon the administrative review or on the observations and recommendations of the assessment team.

Sign off on endpoints does not constitute any acknowledgment that damages to natural resources caused by this incident have been adequately addressed.

It is recognized that the above endpoints may not be applicable (or achievable) at all sites. Best professional judgment and the consensus of federal, state and, if applicable, the RP's environmental consultants (identified herein as "Environmental Unit") should be used to assess when the cleanup meets the above objectives. The Environmental Unit Leader for these endpoints will be a representative of South Carolina. If a responsible party exists for a given target, there may be additional requirements defined by private landowners or municipal managers, and such requirements may be outside the scope of the Unified Command.

10000 Best Management Practices (BMPs) for the Protection of Sensitive Ecological and Cultural Resources

10100 Summary

All operations shall be conducted with the overarching philosophy of "do no more harm than good". Many of the following BMPs are provided for the protection of Federal & State protected species and other sensitive resources.

10200 All Personnel

- Watch for and avoid collisions with wildlife. Report all distressed or dead wildlife to Wildlife Rehab Task Force
- Report any distressed or dead sea turtles or marine mammals
- Remove all personal & Response trash or anything that would attract wildlife to work areas

10300 All Field Operations

10301 Cultural Resource Protection

- Any Native American graves or burials must be reported to the State Historic Preservation Office
- Native American and historic-era artifacts (e.g. pot shards & arrowheads) must not be collected.
- When activity occurs within 250 meters (820 feet) of a sensitive cultural resource, a qualified archaeologist or other qualified historic preservation professional must be present to monitor the work.

10302 Natural Resource Protection

- Do not disturb wildlife or habitat (including foraging or nesting areas).
- Report any distressed or dead wildlife to the stranding networks:
    - Report sea turtles to the SC DNR Marine Turtle Conservation Program Coordinator at 843-384-0605 (cell) or 843-953-9052 (office)
    - Report dolphins to 1-877-WHALEHELP (1-877-942-5343)
    - Report distressed or dead sturgeon to the SCDNR Diadromous Fish Coordinator at 843-953-9821
    - Report manatees to the U.S. Fish and Wildlife Service South Carolina Manatee Lead at 843-727-4707 x 205. Reports to injured manatees may also be reported to the SCDNR at 800-922-5431
    - Report injured birds to the Avian Medical Clinic at 843-971-7474 and press option #1.
- Perform site visits & work from waterway, paved surfaces or existing roadways whenever possible to minimize impacts to sensitive habitats.
- Select vehicles and equipment which are least likely to disturb soils/sediments and keep loading to a minimum to reduce ground pressure (on unpaved surfaces).
- Sensitive, non-ecological sites (i.e. cultural, historical, pipelines, water control structures, etc.) must be avoided unless otherwise authorized. The Environmental Unit (EU) will identify

sensitive sites in the vicinity of actionable targets, though all field personnel should take care when transiting to and from actionable targets.
- Avoid minimize the release of contaminants from orphaned containers into critical habitat and other aquatic areas.
- Removal of orphan pollution containers from sensitive habitats may require specialized operations to minimize impacts. Such operations shall be closely coordinated with Environmental Unit.

10400 Specific Response Activities

10401 Aerial Operations

- Avoid hovering or landing aircraft in/near posted bird sites or areas with high bird concentrations.
- No flights below 500 feet over Wildlife Refuges, Management Areas, bird rookeries or National Parks.

10402 Open-Water Operations

- Do not block major egress points in channels, rivers, passes, and bays.
- Water channels shall be used for navigation through the marshes. Under no circumstances shall vessels run over the top of or across the marsh grasses. Stopping or landing a vessel on top of the marshes is prohibited.
- All vessel approaches to the marshes shall be limited to grounding the bow of the vessel on the fringe of the marsh, avoiding landing directly on top of the marsh grasses as much as possible.
- Special Use Permits are required for conducting Air Boat operations in National Wildlife Refuges and State of South Carolina Wildlife Management Areas. Contact the EU to ensure proper permits have been obtained.
- If using Air Boats, maintain a distance of 1,000 feet from critical habitats, rookeries, and/or other high bird use areas to minimize disturbance.
- Monitor boom, lines & underwater equipment regularly to prevent fish/wildlife entanglement/entrapment.
- If a sea turtle or marine mammal is observed trapped or entangled in a boom, line, or anchoring systems, open the boom to free the animal and notify the Wildlife Branch & Environmental Unit.
- Watch for and avoid collisions with sea turtles and dolphins.

10403 Land Based Operations

- Minimize ground-disturbing activities to as small an area as feasible to complete the task.
- Avoid posted/marked or other high bird use areas and minimize activities in critical habitat areas for Endangered Species.
- When working on/near sand beaches, do not disturb Piping Plovers.

10404 Marsh Operations

Protect marsh vegetation & associated soils by doing the following:

- Maximize use of open water, dikes, existing roads and trails and stay away from undisturbed marsh. Access routes should be planned to minimize impacts to the environment.
- Do not create unnatural ruts, channels, dikes or drainage routes and do not re-use previously made tracks.
- Use care around bank and shoreline crossings at canals, natural water bodies and ditches.
- Avoid disturbing vegetation, marsh soils, or peat with foot traffic/boats/equipment.
- Travel corridors should be as narrow as possible with designed turn around area. Stay within designated access or travel lanes when present.
- Minimize removal of clean sediment, seaweed and natural debris. Replace removed materials, if practical.
- Use low-pressure tire vehicles (e.g. ATVs, Gators) when practical and consult with the EU to minimize impact
- Avoid posted/marked or other high bird use areas and minimize activities in critical habitat areas for Endangered Species.
- Activities that may require removal of forested and shrub or scrub habitat should be minimized
- Any foot traffic access to the marshes shall avoid oiled grasses and sediments and utilize one-way-in and one-way-out traffic with walking boards in travel lanes and crosswalks on the marsh.
- All foot traffic in oiled marshes will be done on the walking boards, with no direct foot traffic in the marsh. Walking boards should not be placed in un-oiled marsh areas, and no foot traffic or other entry by response personnel or equipment should occur in these un-oiled areas unless approved by the Unified Command.
- If pollution target location is inaccessible or access with heavy equipment would result in unacceptable habitat damage relative to that posed by the pollution threat, then specialized operations may be needed to minimize impacts. Such operations shall be closely coordinated with Environmental Unit.
- Water channels shall be used for navigation through the marshes. Under no circumstances shall vessels run over the top of or across the marsh grasses. Stopping or landing a vessel on top of the marshes is prohibited.

10500 Target Closure

The Unified Command recognizes the importance of partnerships with trust resource agencies and the stewardship of the environment. The procedures below are intended to expedite target closure and sign-off process while allowing opportunity for trustee input.

The Operations Section will use their professional judgment to apply the appropriate status (open or closed) to a target in the database. Once a target is set to be closed, that target will be routed to the Environmental Unit via spreadsheet summary for review. The Environmental Unit will determine if concurrence with closed status exists by approved methods. If concurrence does not exist, recommendations for further action will be provided to Operations Section. If concurrence exists, then the database will be updated to reflect change and supporting documentation completed.

The acceptable methods for achieving concurrence on closure status of a target may include administrative decision, aerial inspection or site inspection. The Environmental Unit will use their

best professional judgment to determine the risk of a target and an appropriate method for achieving concurrence.

For HAZMAT Targets

- Low risk targets will achieve concurrence by administrative decision, provided collected field observations and data can sufficiently justify concurrence
- Potentially high risk targets may require aerial inspection or site inspection to achieve concurrence.

For Oil Targets

- Any target that threatened or impacted navigable waters per National Contingency Plan (40CFR300.3), may require an aerial or site inspection to achieve concurrence.

To support proper documentation of the above closure and concurrence process, the database will contain fields to capture such information. "Status" is a field that tracks operational status and is described in Data Management Plan. "Concurrence" is a field that tracks the consensus on target closure between Operations Section, Environmental Unit, Unified Command and supporting resource agencies. An additional field, "Concurrence Comment," will capture any additional information that will ensure thorough documentation. The following table lists the valid values for "Concurrence" with definitions and examples.

Concurrence	**Definition**	**Example**
No Concurrence (No Sign-off)	UC has determined that clean up endpoints have not been met and additional cleanup is required	-Operations determines that cleanup endpoints have been met, but UC determines otherwise
No Further Action (Signed-off)	UC determines that no further action is required and cleanup endpoints have been met	- UC concurs that endpoint has been met for a given target -Orphan container left in place in a satisfactory condition
Referred to Regulatory Agency (Signed-off)	UC determines that another agency is better suited to take responsibility for the target based on authority and jurisdiction and notes agency in comments field. Target responsibility is handed off.	-LDEQ assumes responsibility for target -USFWS, LDWF, LDEQ and/or Corps of Engineers
Unfounded (Signed-off)	Target lacks the minimum information to be further investigated	-Unsubstantiated reports -No lat/long info -No known pollution threat

NOTE: For initialization of "Concurrence" field, each entry will be populated with No Concurrence (Pending) and this will be the default value for new entries.

All targets on graphical representations shall conform to the following convention:

- All targets Open and No Sign-off will be shaded red
- All targets Closed and No Sign-off will be shaded blue
- All targets Closed and Signed-off will be shaded green
- All oil targets will be a circle with a black border and black dot in the centroid
- All HAZMAT targets will be a triangle with a black border and black dot in the centroid

11000 Target Site Inspection Form

1. GENERAL INFORMATION		Date (ddmmyy)	Time (24h rs Local Time)	Tide Height LMH
Site Name:				
SCAT Division/Grids:				
Inspection By: Foot -Airboat -Boat -Other			Sun- Clouds- Fog -Rain- Snow -Windy	
2. INSPECTION TEAM	Name , Organization , and Signature			
3. Grids	Description of Shoreline Surveyed:			
4 SHORELINE TYPES	Select Primary (P) and Secondary (S) Habitat Types Present			
	Marsh or Wetlands (includes Floating Marsh)		Manmade Structures	
	Tidal Flats/Mud Flats		Wave-cut Scarps	
	Shell or Mixed Sand & Shell Beaches		Other:	
5 CLEANUP ENDPOINTS	**REFER TO ENDPOINTS (09 SEPTEMBER 2012)**			
Yes No Has Operations remediated the target such that all endpoints been reached? If no, please explain:				
Other oiling conditions or observations:				
6 RECOMMENDATIONS				

Yes No Recommend Additional Active Cleanup (Stage 1). Comments:
Yes No Recommend continued maintenance of passive sorbent recovery for sheens (Stage 2). Comments:
Yes No Site meets the interim cleanup endpoints (Stage 3). Recommend natural recovery for residual pollution.
Photos taken? Yes – No Additional Comments: Yes – No (if yes, see attached)

Lowcountry Area Contingency Plan (LACP)

Unconventional Oil Response

Annex L

January 2022

Record of Changes

Change Number	Change Description	Section Number	Change Date	Name
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Table of Contents

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. 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. 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. Therefore, responders must consider the potential impact of tank cars containing other hazardous commodities with tank cars carrying unconventional crude oils.

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), which may not include specific product hazards for the exact oil being transported. Therefore, it is paramount responders carefully consider the incident-specific product(s) and recognize hazard variations may exist.

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. 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 but 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.

2100 Potential Hazards

As noted 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:

- 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 may aid responders in estimating the potential impact:

- 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. 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. Tape, barricades, traffic cones, or fire service/law enforcement resources can be used to establish and maintain perimeters. 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. The Emergency Response Guide can be used to provide initial guidance for the aforementioned actions.

3100 Evacuation of an Area

As noted 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 the 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:

- 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. Furthermore, products of combustion may also include toxic constituents. 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. Furthermore, a Unified Command (UC) should be established consisting of those agencies and organizations, which have legal or jurisdictional responsibilities. The Incident Commander should consider additional support and resources from regional, state, or federal partners. 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).

3200 Emergency Response Actions

3201 Fire

As noted 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. 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. Proper authorities should be notified of potentially contaminated water. Runoff may be flammable and/or toxic and should be contained, treated, and disposed of in accordance with applicable laws and regulations.

3202 Spill

As noted 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. 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 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 an under-flow dam may also be appropriate depending on the type of oil or its fate/reaction.

Alternative response technologies such as dispersants, 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.

Lowcountry Area Contingency Plan

Consultations: South Carolina State Historical Preservation Office (SHPO)

Annex M

January 2022

Record of Changes

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1000 Introduction

1100 Purpose

This Annex outlines the relationship between the South Carolina 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)."

Within South Carolina, the USCG Federal On-Scene Coordinator (FOSC) in Sector Charleston is 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.

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 South Carolina, 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 SC 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 within the Office of Cultural Development together serve as the SHPO staff for the State of South Carolina and are responsible for the protection of cultural resources (such as historic structures, cemeteries, and archeological sites) across South Carolina. 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 cultural resource 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).

3000 SHPO Interactions

3100 Example 1

A designated USCG FOSC representative contacted the SC SHPO representative to inform of a spill and potential response actions, which involved booming activities along the Cooper River near Charleston. 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 SC SHPO representative to inform of an oil spill associated **mitigation operations related to a sunken vessel removal near Fort Sumter**. 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 SC 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.

Quick Response Guide for Historical Preservation Act Consultation

4000 South Carolina SHPO

SHPO Project Review Staff (sc.gov)

SHPO

Department of Archives & History
8301 Parklane Road
Columbia, SC 29223-4905
Phone: 803-896-6187
Fax: 803-896-6167
E-mail: eemerson@scdah.sc.gov

Deputy

Phone: 803-896-6168
E-mail: emjohnson@scdah.sc.gov

5000 Historic Properties Checklist

Below are the steps to be taken by the FOSC during emergency response activities.

Step 1. Receive notification of oil discharge or hazardous substance release

Step 2. Determine if Historic Properties need to be considered

Does the spill or release fall into one of the following categories listed in the following table of exclusions?

☐ Yes
☐ No

If the answer is "YES," no other actions regarding historic protection are required unless any of the following characteristics apply:

- Previously unidentified historic properties are discovered during the response;
- The State Historic Preservation Officer or appropriate Federal or Tribal organizations notifies the FOSC that a categorically excluded release or spill may have the potential to affect a historic property; The FOSC is not sure whether a release or spill fits into one of the categories listed in the exclusion table;
- At any time, the specifics of a release or spill change so it no longer fits into one of the categories listed above;
- The spill or release is greater than 100,000 gallons.

If the answer is "NO" proceed to Step 3.

Spills/Releases Categorically Excluded from Additional NHPA Section 106 Compliance

Spills/releases onto (which stay on):

- Gravel pads
- Roads (gravel or paved, not including the undeveloped right-of-way)
- Parking areas (graded or paved)
- Dock staging areas less than 50 years old
- Gravel causeways
- Artificial gravel islands
- Drilling mats, pads, and/or berms
- Airport runways (improved gravel strips and/or paved runways)

Spills/releases into (that stay in):

- Lined pits; e.g., drilling mud pits and reserve pits;
- Water bodies where the release/spill: 1) will not reach land or submerged land; and, 2) will not include emergency response activities with land or submerged land-disturbing components;
- Borrow pits;
- Concrete containment areas.

Spills/releases of: Gases (e.g., chlorine gas).

STEP 3: **Historic Properties Specialist**

FOR HISTORIC PROPERTIES SPECIALIST UPON ACTIVATION

Name of Incident: _____

Date/Time of Incident: _____

Spill/Release Location: land _____; water _____; land/water _____

If on land, estimate number of acres contaminated: _____

Spill/Release Coordinates: _____ latitude: _____ longitude

If on land, _____ township: _____ range: _____ section

Distance to nearest water body, if on land: _____ km/mi

Distance to nearest land, if in water: _____ km/mi

Product released: _____

Estimated volume of product released: _____ gals/bbls

Release status: Stopped _____ Continuing _____ Unknown _____

Is spill/release: Contained _____ Spreading _____ Unknown _____

Estimated volume of product potentially released _____ gals/bbls/other measures

Have Regional Response Strategies been approved for the area affected or potentially affected by the spill/release (See Step 5)? Yes _____ No _____

Describe any response actions proposed or taken that include ground-disturbing activities.

_____

STEP 4: Consultation and Coordination

The Historic Properties Specialist will notify and consult with the parties as appropriate and provide them with incident information as outlined in Step 3. Consultation will continue as the Historic Properties Specialist assesses potential effects of emergency response strategies on historic properties.

STEP 5: Potential Emergency Response Strategies for Historic Properties Protection

The Historic Property Specialist recommends to the FOSC response actions and policies developed through the assessment and consultation process to help minimize potential impacts to historic properties. Potential response strategies are included in the following table:

POTENTIAL EMERGENCY RESPONSE STRATEGIES FOR HISTORIC PROPERTIES PROTECTION*

RESPONSE STRATEGY
Mechanical Recovery (e.g. use of skimmers, booms, sorbents)
In Situ Burning
Dispersant Use
Protective or diversionary booming
Covering site with Protective Material
Construction of Berms or Trenches to Divert Product Away from Sites/Areas
On-scene Inspections by the Federal OSC Historic Properties Specialist or Individual(s) Authorized by the Federal OSC Historic Properties Specialist
Participation in Shoreline Cleanup Assessment Teams by the Federal OSC Historic Properties Specialist or individual(s) authorized by the Federal OSC Historic Properties Specialist
Participation in Shoreline Cleanup Teams by the Federal OSC Historic Properties Specialist or individual(s) authorized by the Federal OSC Historic Properties Specialist
Provision of Information on Historic Properties Protection to Response Personnel
Provision of Information to the Federal OSC on Historic Properties Protection for Areas/Locations Proposed for emergency-response related support activities (e.g. helipads and staging areas)

*** Note: These response strategies are not listed in order of precedence. In addition, other response strategies for the protection of historic properties may be identified and recommended to the FOSC for use during an incident response.**

STEP 6: **Documentation of Actions Taken That Resulted in Unavoidable Injury to Historic Properties**

The following form should be completed and submitted, along with any additional supporting documentation, in a reasonable and timely manner to the appropriate entities listed below:

ACTIONS TAKEN

Name of incident: _____

Date/time of incident**:** _____

Location of incident: _____

Brief description of response action approved (including the date) by the Federal On-Scene Coordinator (OSC) where protecting public health and safety conflicted with protecting historic properties:

_____

_____

_____

Brief description of why protecting public health and safety could not be accomplished while also protecting historic properties:

_____

_____

_____

Federal OSC Name and Title: _____

Federal OSC Signature: _____ Date of Signature: _____

Please provide this information to:

- ☐ SHPO
- ☐ Name, email, phone number of potentially-affected resource managers/trustees:
- ☐ Name, email, phone number of potentially-affected resource managers/trustees:
- ☐ Name, email, phone number of potentially-affected resource managers/trustees:

Lowcountry Area Contingency Plan (LACP)

Initial Reporting Form

Annex P

January 2022

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1000 Initial Reporting Form

POLLUTION INCIDENT HAS THE NATIONAL RESPONSE CENTER (NRC) BEEN NOTIFIED? IF NOT, NOTIFY THE NRC AT 1-800-424-8802	Date/Time:

INITIAL INFORMATION COLLECTION – AWARENESS	
Incident type: Oil/Hazmat	Location:

REPORTING SOURCE INFORMATION		
Name/Unit:	Phone:	Address:

VESSEL INVOLVED (Actual or Suspected Responsible Party)		Block N/A ☐
Vessel Name:		Type:
Flag:	Official number/registration number:	Persons on board:
Length:	Color:	Make:
Last port of call (if foreign):	Next port of call:	

RESPONSIBLE PARTY (Actual or Suspected Responsible Party)		
Full Name:	DOB/Age:	Nationality:
Address:	Role:	Phone Number:

ON SCENE WEATHER					
VISIBILITY	WIND	SEA CONDITION		TEMPERATURE	
	Direction/ Speed	Height	Direction	Air	Water
SUNRISE/ SUNSET	TIDAL CURRENT	NEXT TIDE		MISCELLANEOUS	
	Direction/ Speed	High/ Low	Time/ height		

ACTUAL OR SUSPECTED SOURCE INFORMATION	
HAS THE NATIONAL RESPONSE CENTER (NRC) BEEN NOTIFIED? IF NOT, NOTIFY THE NRC at 1-800-424-8802.	
NRC #:	UN ID Number:
Cause of Incident:	First Responders On-Scene: Y / N
Source Type:	

Name of Spilled / Released Material:	
Actual Spilled / Released Amount:	**Total Potential Amount:**
Sheen Dimensions:	**Source Secured: Y / N**
Rate of Spill / Release: **Gallons per Minute / Hour / Day**	**Mitigation Actions in Progress: Y / N**
Affected Medium: □ Air □ Water □ Land **Name of Navigable Waterway Affected:** **More than 3 NM Offshore: Y / N** **River: Y / N** **River Mile Marker:** **Water Intake/outfall in Vicinity: Y / N** **Aquaculture or Fisheries Area Contaminated: Y / N**	

VESSEL INFORMATION		**Block N/A ☐**
Vessel Aground: Y / N	**Propulsion or Steering Disabled: Y / N**	**CG Inspected Vessel: Y / N**
All Types of Oil Onboard:	**Total Oil Capacity:**	
Cargo Onboard:	**Total Cargo Capacity:**	
Have Tanks Been Sounded: Y / N		
Last Port of Call:	**Next Port of Call:**	

FACILITY INFORMATION	**Block N/A ☐**
Name:	**Facility Representative:**
Address:	**Phone:**
Describe actions being taken by Responsible Party or First Responders to mitigate the spill or release:	
Mystery Drum: Y / N **Drum Leaking: Y / N** **Note: DO NOT TOUCH MYSTERY DRUMS!**	

Exact Particulars of Drum:			
Plastic, Steel, Fiberboard	**Condition**	**Labels or Markings**	**Dead Wildlife in Vicinity?**

Lowcountry Area Contingency Plan (LACP)

Risk Analysis: Shoreline Cleanup Methods

Annex AA

January 2022

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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 Lowcountry planning area. Table 1 lists the 12 types of shoreline and their physical and biological characteristics. 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 coastal South Carolina. 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. Table 2 lists the sensitivity, oil behavior, and cleanup concerns for the 12 shoreline types found in South Carolina.

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 South Carolina yet coarse sand shoreline type is included here for completeness because the 12 shoreline types apply to the Lowcountry planning area.

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. Typically, in South Carolina, shell beaches form where coastal erosion is reworking former back barrier environments containing rangia and oyster reefs. 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. Shell beaches usually have poor access in South Carolina.

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. Tidal flat access in South Carolina is typically poor.

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. 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.

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. Access is typically poor in South Carolina.

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. Salt marshes are extensive along the Ashley, Cooper, and Wando rivers and their tributaries.

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 South Carolina.

2200 Shoreline Types in South Carolina

Table 1: Shoreline Types in South Carolina

Shoreline Types in Coastal South Carolina				
	Type	**Description**	**Texture**	**Vegetation**
1	Coastal Structures	Man-made structures for coastal transportation and protection; includes sea walls, jetties, groins, bulkheads, pipelines, breakwaters	Concrete, Rock, Wood, Steel	None
2	Bluffs	Unconsolidation bluffs experiencing erosion by slope failure and wave undercutting; relief ranges 2m – 50m; narrow fringe beach	Fine sand, Coarse sand	None
3	Fine Sand Beach	Fine sand beach with low sloping beach face	Fine sand, Shell hash	None
4	Coarse Sand Beach	Coarse sand beach with moderate sloping beach face	Coarse sand, Shell hash	None
5	Shell Beach	Shell beach with steeply sloping beach face	Broken shells, Shell hash, Fine sand, Coarse sand	None
6	Perched Sand Beach	Narrow and thin beach resting on outcropping marsh deposits; moderately sloping beach face with an erosional scarp	Broken shells, Shell hash, Fine sand, Coarse sand	Salt marsh, Fresh marsh
7	Perched Shell Beach	Narrow and thin beach resting on outcropping marsh deposits; moderately sloping beach face with an erosional scarp	Broken shells, Shell hash, Fine sand, Coarse sand	Salt marsh, Fresh marsh
8	Sandy Tidal Flat	Sandy tidal flats associated with tidal inlet systems; low gradient surface	Shell hash, Fine sand, Coarse sand	Salt marsh, Fresh marsh
9	Muddy Tidal Flat	Muddy tidal flats associated with tidal inlet systems; low gradient surface	Clay, Silt, Shell hash	Salt marsh, Fresh marsh, Forested swamp
10	Swamp	Forested freshwater wetland of evergreen and hardwood trees	Wood, Clay, Silt	Tree, Shrub, Scrub
11	Fresh Marsh	Grass wetlands associated with river deltas and interior coastal areas	Clay, Silt, Organic	Floating aquatic mats; Submerged vegetation; Deciduous scrubs and shrubs; Evergreen scrubs and shrubs
12	Salt Marsh	Grass wetlands vegetated by salt-tolerant species; includes saline, brackish, and intermediate marsh	Clay, Silt, Fine sand, Organic	Deciduous grasses, Scrubs, and Shrubs; Submerged vegetation

2300 Shoreline Sensitivities and Cleanup Concerns

Table 2: Shoreline Sensitivities, Oil Behavior and Cleanup Concerns

Sensitivity, Oil Behavior, and Cleanup Concerns				
	Type	**Sensitivity**	**Oil Behavior**	**Cleanup Concerns**
1	Coastal Structures	Low	Coats structure Little penetration	Low biodiversity and biomass Logistically difficult Recovery of treated oil
2	Bluffs	Low	Coats sediment Low permeability	Low biodiversity and biomass Poor trafficability Poor access
3	Fine Sand Beach	Low	Coats sediment Low permeability	Low biodiversity and biomass Stained sediment Good trafficability Poor access Existing dune habitat
4	Coarse Sand Beach	Low	Coats sediment Moderate/high sediment permeability	Low biodiversity and biomass Stained sediment Moderate trafficability Poor access Existing dune habitat
5	Shell Beach	Medium	Coats sediment High sediment penetration	Moderate biodiversity and biomass Stained sediments Poor trafficability Poor access
6	Perched Sand Beach	Moderate	Coats sediment Coats marsh outcrop Low/moderate sediment penetration	Moderate biodiversity and biomass Stained sediments Poor trafficability Poor access Existing wetland habitat
7	Perched Shell Beach	Moderate	Coats sediment Coats marsh outcrop High sediment penetration	Moderate biodiversity and biomass Stained sediments Poor trafficability Poor access Existing wetland habitat
8	Sandy Tidal Flat	Moderate	Coats sediment Coats vegetation Low/moderate sediment penetration	High biodiversity and biomass Stained sediment Stained vegetation Moderate/good traffic ability Poor access Existing wetland habitat
9	Muddy Tidal Flat	High	Coats sediment Coats vegetation Low sediment penetration	High biodiversity and biomass Stained sediment Stained vegetation Poor trafficability Poor access Existing wetland habitat
10	Swamp	High	Coats sediment Coats vegetation Low sediment penetration	High biodiversity and biomass Stained sediment Stained vegetation Poor trafficability

Sensitivity, Oil Behavior, and Cleanup Concerns				
	Type	**Sensitivity**	**Oil Behavior**	**Cleanup Concerns**
				Poor access Existing wetland habitat
11	Fresh Marsh	High	Coats sediment Coats vegetation Low sediment penetration	High biodiversity and biomass Stained sediment Stained vegetation Poor trafficability Poor access
12	Salt Marsh	High	Coats sediment Coats vegetation Low/moderate sediment penetration	High biodiversity and biomass Stained sediment Stained vegetation Poor trafficability Poor access

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, and heavy) 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 Lowcountry planning area. For each cleanup method, the technique is described, shoreline applications are discussed, and the environmental concerns identified.

Table 3: 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 4 below describes the physical and toxicological characteristics of different types of spilled oil.

Table 4: Physical Properties of Various Oil Types

Oil Type	Physical/Chemical Properties	Toxicological Properties
Light Oils - Jet fuels - Gasoline - Diesel - No. 2 fuel oils - Light crudes	- Spread rapidly - High evaporation and solubility rates - Tend to form unstable emulsions - Very toxic to biota when fresh - May penetrate substrate - Can be removed by low pressure flushing	- Acute toxicity is related to the content and concentration of the aromatic fractions. - Aromatic fractions are very toxic due to the pressure primarily of naphthalene compounds and, to a lesser extent, benzene compounds. - Heavy molecular weight compounds are immediately less toxic, but may be chronically toxic since many are either known or potential carcinogens. - 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. - Mangroves and marsh plants may be chronically affected due to penetration and persistence of aromatic compounds in sediments.
Medium Oils - Most crudes	- Moderate to high viscosity - Toxicity variable depending on light fraction - In tropical climates, rapid evaporation and solution form less toxic weathered residue with toxicity due to more smothering - Tend to form stable emulsions under high physical energy conditions - Variable penetration, a function of substrate grain size - High potential for sinking after weathering and uptake of sediment - Generally removable from water surface when fresh - Weather to tar balls and tarry residue	- Acute and chronic toxicity in marine organisms is likely to result from: 1. Mechanical or physical coverage – oil completely smothering organism causing death. 2. Chemical toxicity – results from the exposure of very toxic aromatic fractions of the oil to marine organisms. 3. A combination of mechanical or physical coverage and chemical toxicity. - Mechanical or physical smothering causing acute toxicity in many marine organisms and chronic toxicity in many marine plants (especially mangroves).
Heavy Oils - Heavy crude oil - No. 6 fuel - Bunker crude - Asphalt - Waste fuel	- Form tarry lumps at ambient temperatures - Non-spreading - Relatively non-toxic due to substrate - May soften and flow when exposed to the sun - Cannot be recovered from water surface with most cleanup equipment - 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 - Toxicity is more common in marine plants (especially mangroves) and sedentary organisms than in mobile organisms - 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 5: Shoreline Cleanup Matrix – Very Light Oil

SHORELINE CLEANUP MATRIX Very Light Oil	SHORELINE TYPES											
	Coastal Structures	Bluffs	Fine Sand Beach	Coarse Sand Beach	Shell Beach	Perched Sand Beach	Perched Shell Beach	Sandy Tidal Flat	Muddy Tidal Flat	Forested Swamp	Fresh Marsh	Salt Marsh
CLEANUP METHOD	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
No Action	A	A	A	A	A	A	A	A	A	A	A	A
Manual Debris Removal	A	A	A	A	P	P	P	P	P	P	P	P
Manual Sediment Removal	X	P	P	P	P	P	P	P	X	X	X	X
Manual Sorbent Application	A	P	P	P	P	X	X	X	X	X	X	X
Manual Scraping	X	P	P	P	X	P	X	P	X	X	X	X
Manual Vegetation Cutting	X	X	X	X	X	X	X	X	X	X	X	X
Motor Grader/Elevating Scraper	X	P	P	P	P	X	X	X	X	X	X	X
Elevating Scraper	X	P	P	P	P	X	X	X	X	X	X	X
Motor Grader/Front-End Loader	X	P	P	P	P	X	X	X	X	X	X	X
Front-End Loader: Rubber Tired or Tracked	X	P	P	P	P	X	X	X	X	X	X	X
Bulldozer: Rubber-Tired Front End Loader	X	P	P	P	P	X	X	X	X	X	X	X
Backhoe	X	P	P	P	P	X	X	X	X	X	X	X
Beach Cleaner	X	P	P	P	P	X	X	X	X	X	X	X
Dragline/Clamshell	X	P	P	P	P	X	X	X	X	X	X	X
Cold Water Deluge Flooding	A	P	P	P	P	P	P	P	P	A	A	A
Low Pressure Cold Water Washing	A	X	P	P	P	X	X	X	X	A	A	A
High Pressure Cold Water Washing	A	X	X	X	X	X	X	X	X	X	X	X
Low Pressure Hot Water Washing	A	X	P	P	P	X	X	X	X	X	X	X
High Pressure Hot Water Washing	A	X	X	X	X	X	X	X	X	X	X	X
Steam Cleaning	A	X	X	X	X	X	X	X	X	X	X	X
Sand Blasting	A	X	X	X	X	X	X	X	X	X	X	X
Vacuum	A	P	P	P	P	P	P	P	P	P	P	P
Trenching/Vacuum	X	P	P	P	P	X	X	P	X	X	X	X
Sediment Removal, Cleaning, and Replacement	X	X	X	X	X	X	X	X	X	X	X	X
Push Contaminated Substrate into Surf	X	X	X	X	X	X	X	X	X	X	X	X
Pavement Breakup	X	X	X	X	X	X	X	X	X	X	X	X
Disc into Substrates	X	X	X	X	X	X	X	X	X	X	X	X
Burning †	X	X	X	X	X	X	X	X	X	X	X	X
Chemical Oil Stabilization †	X	X	X	X	X	X	X	X	X	X	X	X
Chemical Protection of Beaches †	X	X	X	X	X	X	X	X	X	X	X	X
Chemical Cleaning of Beaches †	X	X	X	X	X	X	X	X	X	X	X	X
Nutrient Enrichment †	P	P	P	P	P	P	P	P	P	P	P	P
Bacterial Enrichment †	P	P	P	P	P	P	P	P	P	P	P	P

A	Advised - Method which best achieves the goal of minimizing destruction or injury to the environment.
P	Possible - Viable and possibly useful but may result in limited adverse effects to the environment.
X	Do Not Use
†	Requires RRT approval

3402 Shoreline Cleanup – Light Oil

Table 6: Shoreline Cleanup Matrix – Light Oil

SHORELINE CLEANUP MATRIX Light Oil	SHORELINE TYPES											
	Coastal Structures	Bluffs	Fine Sand Beach	Coarse Sand Beach	Shell Beach	Perched Sand Beach	Perched Shell Beach	Sandy Tidal Flat	Muddy Tidal Flat	Forested Swamp	Fresh Marsh	Salt Marsh
CLEANUP METHOD	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
No Action	P	P	P	P	P	P	P	P	P	P	P	P
Manual Debris Removal	A	A	A	A	P	P	P	P	P	P	P	P
Manual Sediment Removal	X	P	P	P	P	P	P	P	X	X	X	X
Manual Sorbent Application	A	P	A	A	P	P	P	P	P	P	A	A
Manual Scraping	A	P	A	A	P	P	P	P	P	X	X	X
Manual Vegetation Cutting	X	X	X	X	X	X	X	X	X	X	P	P
Motor Grader/Elevating Scraper	X	P	A	A	P	P	P	P	X	X	X	X
Elevating Scraper	X	P	A	A	P	P	P	P	X	X	X	X
Motor Grader/Front-End Loader	X	P	A	A	P	P	P	P	X	X	X	X
Front-End Loader: Rubber Tired or Tracked	X	P	A	A	P	P	P	P	X	X	X	X
Bulldozer: Rubber-Tired Front End Loader	X	P	A	A	P	P	P	P	X	X	X	X
Backhoe	X	P	A	A	P	P	P	P	X	X	X	X
Beach Cleaner	X	P	A	A	P	P	P	P	X	X	X	X
Dragline/Clamshell	X	P	A	A	P	P	P	P	X	X	X	X
Cold Water Deluge Flooding	A	P	A	A	P	P	P	P	X	A	A	A
Low Pressure Cold Water Washing	A	A	A	A	P	P	P	P	X	P	P	P
High Pressure Cold Water Washing	A	X	X	P	X	X	X	P	X	P	P	P
Low Pressure Hot Water Washing	A	P	P	P	P	P	P	P	X	X	X	X
High Pressure Hot Water Washing	A	X	X	P	X	X	X	P	X	X	X	X
Steam Cleaning	A	X	X	X	X	X	X	X	X	X	X	X
Sand Blasting	A	X	X	X	X	X	X	X	X	X	X	X
Vacuum	A	P	P	P	P	P	P	P	P	P	P	P
Trenching/Vacuum	X	P	P	P	P	X	X	P	X	X	X	X
Sediment Removal, Cleaning, and Replacement	X	X	P	P	X	X	X	X	X	X	X	X
Push Contaminated Substrate into Surf	X	X	P	P	P	X	X	X	X	X	X	X
Pavement Breakup	X	X	P	P	P	X	X	X	X	X	X	X
Disc into Substrates	X	X	P	P	X	X	X	X	X	X	X	X
Burning †	X	X	X	X	X	X	X	X	X	X	X	X
Chemical Oil Stabilization †	X	X	X	X	X	X	X	X	X	X	X	X
Chemical Protection of Beaches †	X	X	X	X	X	X	X	X	X	X	X	X
Chemical Cleaning of Beaches †	X	X	X	X	X	X	X	X	X	X	X	X
Nutrient Enrichment †	P	P	P	P	P	P	P	P	P	P	P	P
Bacterial Enrichment †	P	P	P	P	P	P	P	P	P	P	P	P

A	Advised - Method which best achieves the goal of minimizing destruction or injury to the environment.
P	Possible - Viable and possibly useful but may result in limited adverse effects to the environment.
X	Do Not Use
†	Requires RRT approval

3403 Shoreline Cleanup – Medium Oil

Table 7: Shoreline Cleanup Matrix – Medium Oil

SHORELINE CLEANUP MATRIX Medium Oil	SHORELINE TYPES											
	Coastal Structures	Bluffs	Fine Sand Beach	Coarse Sand Beach	Shell Beach	Perched Sand Beach	Perched Shell Beach	Sandy Tidal Flat	Muddy Tidal Flat	Forested Swamp	Fresh Marsh	Salt Marsh
CLEANUP METHOD	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
No Action	P	P	P	P	P	P	P	P	P	P	P	P
Manual Debris Removal	A	A	A	A	P	P	P	P	P	P	P	P
Manual Sediment Removal	X	P	P	P	P	P	P	P	X	X	X	X
Manual Sorbent Application	A	P	A	A	P	P	P	P	P	A	A	A
Manual Scraping	A	P	A	A	P	P	P	P	P	X	X	X
Manual Vegetation Cutting	X	X	X	X	X	X	X	X	X	P	P	P
Motor Grader/Elevating Scraper	X	P	A	A	P	P	P	P	X	X	X	X
Elevating Scraper	X	P	A	A	P	P	P	P	X	X	X	X
Motor Grader/Front-End Loader	X	P	A	A	P	P	P	P	X	X	X	X
Front-End Loader: Rubber Tired or Tracked	X	P	A	A	P	P	P	P	X	X	X	X
Bulldozer: Rubber-Tired Front End Loader	X	P	A	A	P	P	P	P	X	X	X	X
Backhoe	X	P	A	A	P	P	P	P	X	X	X	X
Beach Cleaner	X	P	A	A	P	P	P	P	X	X	X	X
Dragline/Clamshell	X	P	A	A	P	P	P	P	X	X	X	X
Cold Water Deluge Flooding	A	A	A	A	P	P	P	P	P	A	A	A
Low Pressure Cold Water Washing	A	P	P	P	P	P	P	P	X	P	P	P
High Pressure Cold Water Washing	A	X	X	P	X	X	X	P	X	X	X	X
Low Pressure Hot Water Washing	A	P	P	P	P	P	P	P	X	X	X	X
High Pressure Hot Water Washing	A	X	X	P	X	X	X	P	X	X	X	X
Steam Cleaning	A	X	X	X	X	X	X	X	X	X	X	X
Sand Blasting	A	X	X	X	X	X	X	X	X	X	X	X
Vacuum	A	P	A	A	P	P	P	P	P	P	P	P
Trenching/Vacuum	X	P	P	A	P	X	X	P	X	X	X	X
Sediment Removal, Cleaning, and Replacement	X	X	P	P	X	X	X	X	X	X	X	X
Push Contaminated Substrate into Surf	X	X	P	P	P	X	X	X	X	X	X	X
Pavement Breakup	X	X	P	P	P	X	X	X	X	X	X	X
Disc into Substrates	X	X	P	P	X	X	X	X	X	X	X	X
Burning †	P	P	P	P	P	X	X	X	X	X	P	P
Chemical Oil Stabilization †	P	P	P	P	P	P	P	P	X	X	X	X
Chemical Protection of Beaches †	A	P	P	P	P	P	P	X	X	P	P	P
Chemical Cleaning of Beaches †	A	P	P	P	P	P	P	X	X	P	P	P
Nutrient Enrichment †	P	P	P	P	P	P	P	P	P	P	P	P
Bacterial Enrichment †	P	P	P	P	P	P	P	P	P	P	P	P

A	Advised - Method which best achieves the goal of minimizing destruction or injury to the environment.
P	Possible - Viable and possibly useful but may result in limited adverse effects to the environment.
X	Do Not Use
†	Requires RRT approval

3404 Shoreline Cleanup – Heavy Oil

Table 8: Shoreline Cleanup Matrix – Heavy Oil

SHORELINE CLEANUP MATRIX Heavy Oil	SHORELINE TYPES											
	Coastal Structures	Bluffs	Fine Sand Beach	Coarse Sand Beach	Shell Beach	Perched Sand Beach	Perched Shell Beach	Sandy Tidal Flat	Muddy Tidal Flat	Forested Swamp	Fresh Marsh	Salt Marsh
CLEANUP METHOD	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
No Action	P	P	P	P	P	P	P	P	P	P	P	P
Manual Debris Removal	A	A	A	A	P	P	P	P	P	P	P	P
Manual Sediment Removal	X	P	P	P	P	P	P	P	X	X	X	X
Manual Sorbent Application	A	P	A	A	P	P	P	P	P	A	A	A
Manual Scraping	A	P	A	A	P	P	P	P	P	X	X	X
Manual Vegetation Cutting	X	X	X	X	X	X	X	X	X	P	P	P
Motor Grader/Elevating Scraper	X	P	A	A	P	P	P	P	X	X	X	X
Elevating Scraper	X	P	A	A	P	P	P	P	X	X	X	X
Motor Grader/Front-End Loader	X	P	A	A	P	P	P	P	X	X	X	X
Front-End Loader: Rubber Tired or Tracked	X	P	A	A	P	P	P	P	X	X	X	X
Bulldozer: Rubber-Tired Front End Loader	X	P	A	A	P	P	P	P	X	X	X	X
Backhoe	X	P	A	A	P	P	P	P	X	X	X	X
Beach Cleaner	X	P	A	A	P	P	P	P	X	X	X	X
Dragline/Clamshell	X	P	A	A	P	P	P	P	X	X	X	X
Cold Water Deluge Flooding	A	A	A	A	P	P	P	P	P	A	A	A
Low Pressure Cold Water Washing	A	P	P	P	P	P	P	P	X	P	P	P
High Pressure Cold Water Washing	A	X	X	P	X	X	X	P	X	X	X	X
Low Pressure Hot Water Washing	A	P	P	P	P	P	P	P	X	X	X	X
High Pressure Hot Water Washing	A	X	X	P	X	X	X	P	X	X	X	X
Steam Cleaning	A	X	X	X	X	X	X	X	X	X	X	X
Sand Blasting	A	X	X	X	X	X	X	X	X	X	X	X
Vacuum	A	P	A	A	P	P	P	P	P	P	P	P
Trenching/Vacuum	X	P	P	A	P	X	X	P	X	X	X	X
Sediment Removal, Cleaning, and Replacement	X	X	P	P	X	X	X	X	X	X	X	X
Push Contaminated Substrate into Surf	X	X	P	P	P	X	X	X	X	X	X	X
Pavement Breakup	X	X	P	P	P	X	X	X	X	X	X	X
Disc into Substrates	X	X	P	P	X	X	X	X	X	X	X	X
Burning †	P	P	P	P	P	X	X	X	X	X	P	P
Chemical Oil Stabilization †	P	P	P	P	P	P	P	P	X	X	X	X
Chemical Protection of Beaches †	A	P	P	P	P	P	P	X	X	P	P	P
Chemical Cleaning of Beaches †	A	P	P	P	P	P	P	X	X	P	P	P
Nutrient Enrichment †	P	P	P	P	P	P	P	P	P	P	P	P
Bacterial Enrichment †	P	P	P	P	P	P	P	P	P	P	P	P

A	Advised - Method which best achieves the goal of minimizing destruction or injury to the environment.
P	Possible - Viable and possibly useful but may result in limited adverse effects to the environment.
X	Do Not Use
†	Requires RRT approval

Lowcountry Area Contingency Plan (LACP)

Places of Refuge Policy

Annex BB

January 2022

Record of Changes

Change Number	Change Description	Section Number	Change Date	Name
1				
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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 South Carolina 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 LACP.

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 members 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 LACP.

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 LCAC 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 LCAC 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

Lowcountry Area Contingency Plan (LACP)

Health and Safety Plan

Annex CC

January 2022

Record of Changes

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1				
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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 Lowcountry Area Committee (LAC)'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 is 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 South Carolina 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 South Carolina 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 primarily designed for oil and hazardous substance incidents, the plan can be used from all hazard situations.

3300 Development

The ICS compatible Site Safety and Health Plan was initiated at USCG Headquarters, Office of Response in 1998. 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 an 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 the ICS Form 201.

4300 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, when 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 204. 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 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 Emergency Response Plan can be completed by the SOFR, the SOFR's staff, or by ICS personnel (DIVS, TF/ST supervisor, or site supervisor). 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 route.

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 a 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 air monitoring shall 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, documented in writing and 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 Unified Command, Operations Section Chief, or Branch Director 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 route.

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 route.

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 of once per day, depending on the size of the incident. Enough should be completed to ensure that site safety is being adequately enforced during the incident.

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 form 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 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.

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 identifies 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 or the SOFR's 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. 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 route.

Lowcountry Area Contingency Plan (LACP)

Environmental Health Support Guidance

Annex DD

January 2022

Record of Changes

Change Number	Change Description	Section Number	Change Date	Name
1				
2				
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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 the Unified Command identify and incorporate the local health authority within the command structure. As previously mentioned, each State has a designated state health authority that plays a vital role in environmental health support to its citizens.

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 and receive initial environmental health support. The FOSC should provide the Poison Control Center (PCC) with any information related to the event (such as hazard information, product spilled, quantity spilled, Safety Data Sheet, certificate of analysis, impacted media, location of event, occupational impacts, and community impacts). When the PCC is actively engaged, they can produce a Situation Report on calls received and provide guidance to the community including hospitals, the media, clinicians and health authorities. The Centers for Disease Control and Prevention (CDC) recognizes the Poison Control Center as a public health authority.

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 the 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, and Tribal 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: Poison Control Center at 800-222-1222
- SCDES Department of Environmental Services: 888-481-0125

3000 Federal Support under the NCP

3100 The Center for Disease Control (CDC)

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).

3200 NOAA Scientific Support Coordinator

NOAA Scientific Support can provide chemical hazards assessments and coordination for chemical and hazardous substance responses. The District 7 Scientific Support Coordinator can be reached at 954-684-8486 or Email: brad.benggio@noaa.gov.

4000 State Specific Notes

4100 South Carolina

The South Carolina Department of Public Health (SCDPH) is the state government agency responsible for public health in the state of South Carolina. In a scenario of environmental concern or spill, the SCDES State on-scene Coordinator (SOSC) is made aware through the National Response Center report. Each county within the state of South Carolina is associated with a DES Regional Office of Environmental Affairs. Following notification, a Regional On-Scene Coordinator (ROSC) conducts an initial investigation and coordinates emergency operations with involved parties. Based on the event, the SCDPH health authority can provide support the FOSC and should be included in the Unified Command.

As South Carolina has a centralized health department, the following contact information is valid M-F from 8:30 AM to 5:00PM:

- Division of Emergency Response: 888-481-0125

Reporting Chemical Spills, Oil Spills, and Fish Kills | South Carolina Department of Environmental Services

Lowcountry Area Contingency Plan (LACP)

Response Protocols: Disposal Plan

Annex GG

January 2025

Record of Changes

Change Number	Change Description	Section Number	Change Date	Name
1				
2				
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1000 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.
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 South Carolina hazardous waste regulations or under federal law.
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).

2000 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 the 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. Safety Data Sheets (SDS) 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

3000 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, the 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.

4000 South Carolina Waste Management

The SC Department of Environmental Services (DES), a designated state Natural Resource Trustee (NRT), holds the authority to protect the health of the public and the environment. This authority is granted by the SC Pollution Control Act (PCA, 48-1), the SC Hazardous Waste Management Act (HWMA, 44-56), the SC Oil and Gas Exploration, Drilling, Transportation and Production Act, (48-43), and SC Hazardous Waste Management Regulations (61-79).

4100 South Carolina Solid Waste Management

Debris from the Oil Spill shall be managed in accordance with the South Carolina Hazardous Waste Management Regulations. R.61-79_0.pdf (menlosecurity.com)

4200 South Carolina Waste Classification

South Carolina has adopted the U.S. Environmental Protection Agency's (EPA) Hazardous Waste Generator Improvements Rule, effective in South Carolina as of May 24, 2019. South Carolina follows the federal regulations for identifying and classifying hazardous waste, including the conditional exclusions from the definitions of solid and hazardous waste for solvent-contaminated wipes.

Table 2 South Carolina Waste Classifications

Waste Stream	Waste Classification	State	Disposal/Treatment Option
Disposable Oil Booms – Oil has been removed to the extent practical **Containment booms – Final Disposal – Oil has been removed to extent practical** **Oil Contaminated Rags, Gloves, Disposal Personal Protective Equipment, etc.** **Oil Contaminated Debris – Cups, Styrofoam Containers, etc.** **Tar balls / tar patties**	Solid Waste/Industrial Waste	Solid	Disposed of at a permitted Type I landfill
Oil Contaminated Soils and Vegetative Debris	E&P waste, waste type 16, Crude oil spill clean-up waste	Solid	Disposed of at a permitted Type 1 landfill.
Containment Booms – Wash-off waste fluids and solids not contaminated with hazardous waste. **Oily Wastewater not contaminated with hazardous waste**	E&P waste, waste type 16, Crude oil spill clean-up waste	Liquid	Dispose of at approved DES permitted site.
Dead or Injured Wildlife		Solid	This will be managed by the South Carolina Department of Fish and Wildlife and will only be managed as a waste ***if and when*** directed by that agency.

Waste Stream	Waste Classification	State	Disposal/Treatment Option
Oil Removed from Booms	E&P waste, waste type 16, crude oil spill cleanup waste or waste type 50, salvageable hydrocarbons bound for permitted salvage oil operators	Liquid	Disposed of at approved permitted site.

Other materials/waste that can be expected:

Table 3 Additional South Carolina Waste Classifications

Material Type	Waste Stream	State	Disposal/Reclaim Recycle Option
Crude oil skimmed from the water and spill source or Oil removed from booms	Reclaimable / Recyclable oil / E&P Waste	Liquid	Recovered Oil
Potential hazardous waste collected as part of oil spill cleanup operations	Potential hazardous waste	Liquid /Solid / Mixed	Approved RCRA Permitted facility
Uncontaminated Trash (Food waste, wrappings, paper, cardboard, soda can, etc.)	Municipal Trash	Liquid /Solid / Mixed	Disposed of at DES Permitted Type II facility
Plastic bottles and aluminum cans	Recyclables	Solid	Recycling Facility

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, Spill Prevention, Control and Countermeasure (SPCC) plans, 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 are not 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 Practices (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.

For a comprehensive list of DES permitted landfills, view their Solid Waste Facilities List.

Lowcountry
Area Contingency Plan
(LACP)

Decanting Plan

Annex HH

March 2025

Record of Changes

Change Number	Change Description	Part Number	Change Date	Name
1				
2				
3				
4				
5				
6				
7				
8				
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10				

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1000 Introduction

When oil is spilled on the water, mechanical recovery of the oil is the principle approved method of responding. However, the mechanical recovery process and associated systems necessarily involve placing vessels and machinery in a floating oil environment. Incidental returns of oil into the response area, such as oil that falls back into the recovery area from vessels and machinery that are immersed and working in the oil, are an inevitable part of the mechanical recovery process. Similarly, separation or "decanting" of water from recovered oil and return of excess water into the response area can be vital to the efficient mechanical recovery of spilled oil because it allows maximum use of limited storage capacity, thereby increasing recovery operations.

This practice is currently recognized as a necessary and routine part of response operations. In addition, some activities such as those associated with oil recovery vessels, small boats, and equipment cleaning operations may result in incidental discharges. These activities may be necessary to facilitate response operations on a continuing basis and all of these activities are considered to be "incidental discharges."

2000 Decanting Policy

This policy addresses "incidental discharges" associated with spill response activities.
"Incidental discharge" is defined as the release of oil and/or oily water within or proximate to the response area or the area in which oil recovery activities are taking place during and attendant to the oil spill response activities. Incidental discharge includes, but is not limited to, the decanting of oily water, oil and oily water returns associated with runoff from vessels and equipment operating in an oiled environment and the wash down of vessels, facilities, and equipment used in the response. "Incidental discharges" as addressed by this policy, do not require additional permits and do not constitute a prohibited discharge. See 33 CFR 153.301 and 40 CFR 300.

This policy is put in place to facilitate the decanting approval process during a spill response and provide guidance to the Unified Command (UC), response contractors and other members of the spill response community on how to implement decanting. In the initial stages of an incident, the Unified Command may authorize decanting verbally after considering each request for decanting on a case-by-case basis. Prior to approving decanting, the UC should evaluate the potential effects of weather including the wind and wave conditions, the quantity of oil spilled and the type of oil, as well as available storage receptacles. The following items should be considered by Unified Command in determining whether to approve decanting unless circumstances dictate otherwise:

- Contamination levels of water proposed for decanting as well as the quality of receiving waters
- Type, size, and availability of storage devices including available temporary vessel and facility capacity
- Location of designated area
- Need for containment around designated area
- Sufficient retention time to allow for adequate separation of oil and water
- Visual monitoring of the decanting operation

2100 Criteria

During spill response operations, mechanical recovery of oil is often restricted by a number of factors, including the recovery system's oil/water recovery rate, the type of recovery system employed and the amount of tank space available on the recovery unit to hold recovered oil/water mixtures. In addition, the longer oil remains on or in the water, the more it mixes to form an emulsified mousse or highly mixed oil/water liquid, which sometimes contains as much as 70% water and 30% oil, thus consuming significantly more storage space. Decanting is the process of draining off recovered water from portable tanks, internal tanks, collection wells or other storage containers to increase the available storage capacity of recovered oil. When decanting is conducted properly most of the petroleum can be removed from the water.

The overriding goal of mechanical recovery is the expeditious recovery of oil from water. In many cases, the separation of oil and water and discharge of excess water is necessary for skimming operations to be effective in maximizing the amount of oil recovered and in minimizing overall environmental damages. Expeditious review and approval, of such requests is necessary to ensure a rapid and efficient recovery operation. In addition, such incidental discharges associated with mechanical recovery operations should not be considered decanting. In appropriate circumstances, the FOSC can pre-authorize incidental discharges because the discharges will be much less harmful to the environment than allowing the oil to remain in the water and be subject to spreading and weathering.

Therefore, the following policy provides for an expeditious decanting approval process and provides clear guidance to the Unified Command (UC), response contractors, and other members of the spill response community.

2200 Oils Pre-Approved for Decanting and Associated Conditions

Pre-approval for on water decanting may be authorized when pumping recovered oil and water ashore is not practical during the first 24-hours after initial spill discovery. Decanting authorization may be granted for the oil products listed below:

- All crude oils
- Vacuum gas oil
- Atmospheric gas oils
- Recycle oils not containing distillates
- Bunker fuels
- No. 6 fuel oils
- Crude oils
- Cutter stocks
- Coker gas oils.

Decanting of the listed oils may be preapproved if the following conditions are met:

- Pre-approval is for the first 24-hours after spill discovery. Decanting requests for all the remaining operational periods will need to be completed and submitted to the Unified Command. The responsible party (RP) must fill out the enclosed Decanting Request Authorization Form and seek Unified Command approval prior to any additional decanting approvals from the second operational period on.

- The Unified Command must be notified within one hour of decanting being initiated; and
- The RP assures the Unified Command that they are quickly obtaining adequate oil storage and skimming capacity within the first 24 hours and the responding Primary Response Contractor (PRCs) is expeditiously getting sufficient storage and skimming capacity, if available (worst case discharges may exceed these resources throughout the region) to alleviate the need for prolonged decanting.

The following criteria found in the current Decanting Authorization Form must be complied with:

- Decanted waters must contain a lesser concentration of oily contaminants, determined visually, than the oil/water mixture being recovered.
- Decanted water must be discharged within a collection boom, unless otherwise authorized by the SOSC/FOSC. If discharge is approved without a collection boom, decanted water must be discharged within a vessel collection well, recovery belt area, weir area, or directly in front of a recovery system, unless approved otherwise.
- Vessels not equipped with an oil/water separator must allow a specified retention time of _____for oil held in internal or portable tanks before decanting commences. Water to be decanted must be withdrawn a minimum of twelve inches below the oil/water interface in any temporary storage tank.
- Close control over the skimmer/discharge system must be continually maintained by operating personnel to prevent discharge of concentrated oils.
- The RP shall record all decanting operations including location of the decanting, time decanting started, time decanting stopped, and decanting pump rates.
- USCG and federal / state agency staff shall have access to the decanting operation for the purpose of evaluating its effectiveness and to collect samples if needed.
- Additional conditions (if necessary): Unified Command can revoke the pre-approval at any time if the above conditions are not met.

Shore-side container decanting (i.e. vacuum truck, portable tanks, etc.) is not authorized for pre-approval under this policy. Decanting in areas where vacuum trucks, portable tanks, or other collection systems are used for shore cleanup will be subject to completing the decanting form contained in this policy prior to authorization and compliance with the same rules as vessels.

2300 Oils Requiring Approval by Unified Command Prior to Decanting

During a response, when decanting has not been pre-approved for lighter oils, which are not listed above, it will be necessary for response contractors or the responsible party to request from the Unified Command written authority to decant while recovering oil so that the response operations do not cease or become impaired. The Unified Command will consider each request for decanting of lighter oils on a case-by-case basis. Prior to approving decanting, the Unified Command should evaluate the potential effects of weather including the wind and wave conditions, the quantity of oil spilled and the type of oil as well as available storage. The Unified Command should also take into account that recovery operations as enhanced by decanting will actually reduce the overall quantity of pollutants in a more timely and effective manner to facilitate cleanup operations.

The following criteria should be considered by the Unified Command in determining whether to approve decanting:

- All decanting shall be done in a designated "Response Area" within a collection area, vessel collection well, recovery belt, weir area, or directly in front of a recovery system;
- Vessels employing sweep booms with recovery pumps in the apex of the boom should decant forward of the recovery pump;
- All vessels, motor vessels, and other equipment not equipped with an oil/water separator should allow retention time for oil held in internal or portable tanks before decanting commences;
- When deemed necessary by the UC or the response contractor a containment boom will be deployed around the collection area to minimize loss of decanted oil or entrainment.
- Visual monitoring of the decanting area shall be maintained so that discharge of oil in the decanted water is detected promptly; and
- Decanting in areas where vacuum trucks, portable tanks, or other collection systems are used for shore cleanup will be subject to the same rules as vessels.

The response contractor or responsible party will seek approval from the UC prior to decanting by presenting the UC with a brief description of the area for which decanting approval is sought, the decanting process proposed, the prevailing conditions (wind, weather, etc.) and protective measures proposed to be implemented. The UC will review such requests promptly and render a decision as quickly as possible. FOSC authorization is required in all cases and in addition SOSC authorization is required for decanting activities in state waters.

Other activities related to possible oil discharges associated with an oil spill event such as actions to save a vessel or protect human life which may include such actions as pumping bilges on a sinking vessel are not covered by this policy.

3000 Oil Spill Decanting Authorization Form

Table 1 Oil Spill Decanting Authorization Form

DECANTING APPROVAL FORM **Approval for the Use of Decanting in Oil Spill Cleanup Operations**
Date(s) Approval Effective:
Federally Defined Response Area:
Name of Requester:
Location and Description of Proposed Decanting Operation:
Decanting Operation Conditions 1. All decanting should be done in a designated "Response Area" within a collection area, vessel collection well, recovery belt, weir area, or directly in front of a recovery system. 2. Vessels employing sweep booms with recovery pumps in the apex of the boom shall decant forward of the recovery pumps. 3. Vessels not equipped with an oil/water separator should allow retention time for oil held in internal or portable tanks before decanting commences. 4. Containment boom **must / need not** (circle one) be deployed around the collection area to prevent loss of decanted oil or entrainment. 5. Visual monitoring of the decanting shall be maintained at all times to promptly detect any discharge of oil in the decanted water. 6. Decanting in areas where vacuum trucks, portable tanks, or other collection systems are used for shore cleanup will be subject to the same rules as a vessel, provided that the container is clean.
Additional Comments:
Approval Signatures **Federal On-Scene Coordinator (OSC):** Signature: _____ Date: _____ **State On-Scene Coordinator (OSC):** Signature: _____ Date: _____

Note: When verbal authorization is given, a copy of this form must be immediately expedited by the requestor to ensure that the conditions and limitations are clearly understood.

4000 Decanting Use Decision Memo

Name of Spill Incident: Name of Requestor:

Federally defined response area: Product Spilled:

Effective date(s) of approval:

Current storage capacity on site:

The Federal and State OSC's hereby approve the use of decanting as a means of expediting the recovery of oil during the above mentioned spill response operation. The following approval provides authority to conduct decanting of oil so that response operations do not cease or become impaired. FOSC authorization is required in all cases, and SOSC authorization is required for decanting within state waters. The OSC should acknowledge that recovery operations enhanced by decanting will actually reduce the overall quantity of pollutants in a more timely and effective manner to facilitate clean-up operations.

The following criteria should be followed in order for decanting to proceed in an efficient manner:

1) All decanting should be done in a designated "response area" within a collection area, vessel collection well, recovery belt, weir area, or directly in front of a recovery system.
2) Vessels employing sweep booms with recovery pumps in the apex of the boom should decant forward of the recovery pump.
3) All vessels, motor vehicles, and other equipment not equipped with an oil/water separator would allow retention time for oil held in internal or portable tanks before decanting commences.
4) A containment boom must / need not (circle one) be deployed around the collection area to minimize loss of the decanted oil or entrainment.
5) Visual monitoring of the decanting area shall be maintained so that discharges of oil in the decanted water are detected promptly.
6) Tanks used for decanting will be tested prior to use to ensure there are no contaminates from previous activities and that the water is safe to discharge back into the environment.
7) Settling times for oil water separation on board skimmers is estimated to be:
8) Additional conditions:

Approval: (Check one) Yes _____ No _____
Environmental Unit Leader (Planning) _____
FOSC _____
SOSC _____
Reason for disapproval: _____

Figure 1 Sample Decanting Use Decision Memo