AREA CONTINGENCY PLAN
For
NORTHEAST and EASTERN CENTRAL FLORIDA
Subj: LETTER OF PROMULGATION FOR NORTHEAST AND EASTERN CENTRAL FLORIDA AREA CONTINGENCY PLAN

1. **Purpose.** This instruction promulgates the Northeast and Eastern Central Florida Area Contingency Plan (ACP) covering the Captain of the Port (COTP) Jacksonville Zone. The Northeast and Eastern Central Florida ACP provides updated local information, specific response organization, and detailed plans for the containment, cleanup and disposal of oil and hazardous substance discharges and releases.

2. **Publication Affected.** This plan is effective immediately and supersedes all previous editions of the Area Contingency Plan.

3. **Discussion.** This plan includes information on general authorities; national, state and local response policy; assignment of responsibility for cleanup; multi-agency response organization; specific response strategies; marine fire-fighting plans; a marine salvage plan; a hazardous materials releases response plan; a Worst Case Discharge Scenario; and a Weapons of Mass Destruction response plan.

4. **Action.** All federal agencies, state agencies, local agencies, commercial spill response contractors, and responsible parties are encouraged to be guided by this plan during pollution response efforts, regardless of size or scope. All Coast Guard commands in Northeast and Eastern Central Florida shall ensure that personnel performing duties prescribed in this plan are trained and qualified to comply with its provisions.

5. **Responsibility.** Sector Jacksonville departments shall review the ACP and update their departmental standard operating procedures to reflect any process or policy changes contained therein. The ACP is formatted within an Incident Command System (ICS) framework and is divided into nine sections:

   a. **Section 1000 Introduction** provides the authority and theoretical framework for the current response system in the United States.

   b. **Section 2000 Command** discusses the Unified Command (UC) concept while detailing staff responsibilities of the UC members including the Information, Safety and Liaison positions.

   c. **Section 3000 Operations** describes the structure and role of the Operations Section including geographic response plans, which divide the entire COTP zone into manageable areas. The links to the maps (web-based ACP) provide all the information necessary to identify sensitive areas and plan response operations.
d. **Section 4000 Planning** provides the Planning Section structure and roles and details required correspondence, permit and consultation procedures.

e. **Section 5000 Logistics** addresses the Logistics Section.

f. **Section 6000 Finance** details the Finance and Administration Section.

g. **Section 7000 Hazardous Materials** contains the hazardous material response plan.

h. **Section 8000 Marine Fire Fighting** contains Marine Fire Fighting Plans including Fernandina, Jacksonville, and Port Canaveral.

i. **Section 9000 Appendices** contains the appendices for the plan including notification procedures, personnel and resource directories, a draft Incident Action Plan, planning scenarios and other relevant documentation.

T. G. Allan, Jr.
Captain, U.S. Coast Guard
Federal On-Scene Coordinator
Captain of the Port
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Northeast and Eastern Central Florida
Area Contingency Plan

Annex 1000: Introduction
1000 Introduction

Following the EXXON VALDEZ oil spill, the United States government quickly enacted legislation to bolster spill response capabilities and to address many of the deficiencies identified in the response system at that time. Such deficiencies included the lack of a defined response structure from Federal, State, and local stakeholders; poor information management to the press, public and other affected parties; and minimal information exchange between all parties. The development of the Area Contingency Plan (ACP) was instrumental in both addressing and rectifying these issues in our area of responsibility.

The Area Contingency Plan (ACP) is a plan prepared by the Area Committee (AC). It is part of a family of plans to be implemented in conjunction with the National Contingency Plan (NCP) and the Regional Contingency Plan (RCP), to address removal of oil and hazardous substances. The boundary of the North and Eastern Central Florida (NECF) ACP includes those areas within the jurisdiction of the U.S. Coast Guard Sector Jacksonville. The area contingency planning process is based on the premise that proper planning is essential to a safe and effective response. In keeping with the Coast Guard Commandant's motto, “Preparation Equals Performance,” the Area Committee seeks to enhance the response community’s ability to mitigate substantial threats or actual incidents through coordinated planning processes. The purpose of the ACP is to define the roles, responsibilities, resources, and procedures necessary to respond to a myriad of spill response contingencies. It is important to note the ACP is a plan for use in responding to an incident. Information found in the plan relating to such items as response resources should not be viewed as performance standards. These are planning criteria based on a set of assumptions that may not exist during an actual incident.

The ACP is formatted within an Incident Command System (ICS) framework. As an overview, Section 1000 provides the authority and theoretical framework for the current response system in the United States. Section 2000 Command discusses the Unified Command (UC) concept while detailing staff responsibilities of the UC members including the Information, Safety and Liaison positions. Section 3000 Operations describes the structure and role of the Operations Section including geographic response plans, which divide the entire COTP zone into manageable areas. The links to the maps (web-based ACP) provide all the information necessary to identify sensitive areas and plan response operations. Section 4000 Planning provides the Planning Section structure and roles and details required correspondence, permit and consultation procedures. Section 5000 Logistics addresses the Logistics Section while Section 6000 Finance details the Finance and Administration Section. Section 7000 Hazardous Materials is reserved for further development and Section 8000 Marine Fire Fighting contains the Marine Fire Fighting Plan. The final section, Section 9000 Appendices, contains the appendices for the plan including notification procedures, personnel and resource directories, a draft Incident Action Plan, planning scenarios and other relevant documentation. All USCG ACP’s will conform to this basic format to allow consistency across the nation while still accounting for geographic differences. This plan will be digitized and available for downloading from the USCG Sector Jacksonville’s web site.

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1100 Authority

This section describes the various authorities under which governmental and private organizations operate in response to oil and hazardous materials discharges and releases in the coastal zone. The section is organized as follows:

1110 Captain of the Port Authority
1120 Response System Authority
1130 Investigative Authority

1110 Captain of the Port Authority

Executive Order 12777 of 22 October 1991 designated responsibilities for both the Commandant of the U.S. Coast Guard (through the Secretary of Homeland Security (DHS)) for the coastal zone, and for the Administrator of the Environmental Protection Agency (EPA) for the inland zone. The term “coastal zone” is defined in the National Contingency Plan (NCP) (40 CFR 300.5) to mean all United States waters subject to the tide, United States waters of the Great Lakes, specified ports and harbors on inland rivers, and the waters of the Exclusive Economic Zone (EEZ). The Coast Guard has designated as areas, those portions of the Captain of the Port (COTP) zones, which are within the coastal zone, for which Area Committees will prepare Area Contingency Plans. The COTP zones are described in Coast Guard regulations (33 CFR Part 3).

1120 Response System Authority

Section 4202 of the Oil Pollution Act of 1990 (OPA 90) amended Subsection (j) of Section 311 of the Federal Water Pollution Control Act (FWPCA) (33 U.S.C.1321 (j)) to address the development of a National Planning and Response System. As part of this system, Area Committees were established for each area designated by the President. The Area Committees are comprised of qualified personnel from federal, state, and local agencies. Each Area Committee, under the direction of the Federal On-Scene Coordinator (FOSC) for the area, is responsible for developing an Area Contingency Plan (ACP). This development process includes appointing Area Committee members, determining information to be included in Area Contingency Plans, and reviewing and approving Area Contingency Plans. The ACP, when implemented in conjunction with the National Contingency Plan (NCP), shall be adequate to remove a worst-case discharge of oil or a hazardous substance. In addition, it shall also mitigate or prevent a substantial threat of such a discharge, from a vessel, offshore facility, or onshore facility operating in or near the geographic area. Each Area Committee is responsible for working with state and local officials to pre-plan for joint response, including appropriate procedures for mechanical recovery, dispersal, shoreline cleanup, protection of sensitive environmental areas, and protection, rescue, and rehabilitation of fisheries and wildlife. The Area Committee is also required to work with state and local officials to expedite decisions for the use of dispersants and other mitigating substances and devices.
1130 Investigative Authority

Several federal, state, and local agencies have a direct role in the enforcement of applicable laws and regulations associated with a discharge, or substantial threat of a discharge, of oil into the navigable waters of the U.S. The investigation into alleged violations of the many applicable laws and regulations require a coordinated effort among the several agencies. These agencies include USCG, MMS and FDEP.

1130.1 The United States Coast Guard

The U.S. Coast Guard has enforcement and investigative authority for a significant array of potential federal violations, as well as enforcement actions under applicable international treaties. Federal laws and regulations associated with a discharge (or substantial threat of a discharge) of oil include applicable components of the Clean Water Act as amended; the Oil Pollution Act of 1990; the Ports and Waterways Act; The Port and Tanker Safety Act; The Act to Prevent Pollution from Ships (1980), as amended; and, Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78). In addition, USCG has authority pursuant to 46 USC 7701 and 46 USC 6101 related to personnel actions (licensed mariners), and marine casualties, respectively. Federal regulations associated with investigative or enforcement interest under these USC’s include, though are not limited to: applicable sections of 46 CFR with particular attention to Parts 4, 5, 16; 33 CFR Parts 126, 130, 151, 153-160; and 40 CFR Parts 116, and 117. Potential federal enforcement actions associated with a pollution discharge may include, but are not limited to: the collection of statements and evidence to determine the causes of the associated marine casualty, mandatory chemical testing of involved licensed personnel, and the collection of oil samples in the water and on suspect vessels.

1130.2 United States Department of the Interior, Minerals Management Service (MMS)

The MMS’s regulatory authority for accident investigation of offshore oil and gas facilities and related operations is based on the provisions in 30 CFR Part 250.19, Accident Reports (see also the OCS Lands Act Amendments, September 18, 1979, 43 USC 1801, Title II, Sec 208, Sec 22 (d) (1)). The MMS Manual states that the agency’s principal objectives in conducting accident investigations are: “...to ensure consistent data collection and investigation of accidents in order to gather the information necessary to determine the cause(s) and to make appropriate recommendations for any corrective action needed. The primary goals are to prevent the recurrence of accidents, to enhance the safety of operations, and to protect the environment.” (MMS Manual, Program Series, Part 640, Rules and Operations, Chapter 3, Accident Data Collection and Investigation, August 3, 1992). The MMS manual further states in Chapter 3.3.(A) that “unless otherwise specifically ordered by the Director, all investigations...shall be fact-finding proceedings with no criminal issues and no adverse parties. The purpose of the investigation is to prepare a public report.” The August 29, 1989 Memorandum of Understanding (MOU) between the MMS and USCG provides guidelines for convening accident panels and coordinating accident investigations between the two agencies.

1130.3 The State of Florida, Department of Environmental Protection

Florida statute Section 376.031(12) designates FDEP as the lead agency in responding to all discharges of pollutants that occur in coastal waters, estuaries, tidal flats, beaches and lands adjoining the seacoast of Florida. Additional information can be found in Florida’s Coastal Pollutant Spill Contingency Plan, which is maintained by Florida Bureau of Environmental Response.
1130.4 Local Enforcement Authorities

Local agencies rely on the authority of federal and state agencies to investigate, respond, and penalize for incidents within their respective regulatory jurisdiction. These agencies are detailed in Appendices 9240.109 Emergency Services, 9230.120 Local Law Enforcement and 9220.110 State Law Enforcement.

1200 Geographic Boundaries

Three sets of Federal boundaries address maritime discharges or potential discharges of oil. These include the Officer in Charge of Marine Inspection zone (OCMI), Captain of the Port zone (COTP), and the Coast Guard pre-designated Federal On Scene Coordinator (FOSC) area of responsibility. State and local boundaries correspond exactly with their political boundaries.

For contingency planning purposes and in the event of an actual large offshore oil spill, the Captains of the Ports of Miami and Jacksonville will address all of Brevard County's issues under the umbrella of Sector Jacksonville. All other planning and response issues will continue to be addressed through the normal framework. Sector Jacksonville boundary Ltr with Brevard Co.pdf.

This Contingency Plan applies only to the area for which the COTP is the pre-designated FOSC.
**1210 OCMI & COTP Zone**

Sector Jacksonville is responsible for all Coast Guard missions in the zone as follows: zone starts at the outermost extent of the EEZ at latitude 30° 50’ N, longitude 76° 09’ 54" W; thence proceeds west to latitude 30° 50’ N, longitude 82° 15’ W; thence south to the intersection of the Florida-Georgia boundary at longitude 82° 15’ W; thence westerly along the Florida-Georgia boundary to longitude 83° 0’ W; thence southeasterly to latitude 28° 0’ N, longitude 81° 30’ W; thence east to the outermost extent of the EEZ at latitude 28° 0’ N, longitude 79° 23’ 34" W; thence north easterly along the EEZ to the point of origin.

These boundaries recognize the Coast Guard’s primary responsibility for discharges and releases in navigable waters from vessels and waterfront facilities as defined in 33 CFR 126.01 and EPA’s primary responsibility for discharges and releases that occur on land. Because a discharge may occur in both zones simultaneously, as a general rule, the location of the source of the discharge will be the determining factor for which agency provides the OSC. When the discharge or release occurs and remains within one agency’s boundary, it is clear which agency will provide the OSC. When requested by the other agency, each agency will provide support, within the limits of their resources, to the other’s OSC. When a spill occurs in one zone and flows, or threatens to flow, into another zone, either the EPA will provide the OSC and the CG will assist the EPA with waterside clean-up operations or by mutual agreement, the CG would provide the OSC and the resources. Communication and coordination between EPA and CG OSCs is vital to an effective federal response.

Map 1 - Geographic Boundaries – Area of Responsibility
1220 FOSC Area

As defined in the 03 November 1999 Memorandum of Understanding (MOU) between the U.S. EPA (Region IV) and the Seventh U.S. Coast Guard District, the Captain of the Port, Jacksonville, Florida will be the pre-designated Federal OSC in the area outlined below. As a result of the MOU, and as delineated therein, the Captain of the Port Jacksonville is the pre-designated FOSC for the coastal area and the EPA is responsible for inland areas. When a roadway is used to delineate a boundary, that boundary shall be to, but shall not include, the roadway. Due to minor ambiguities in the coastal area boundary line for Northeast and Eastern Central Florida, the Coast Guard and EPA are renegotiating the boundary line definition for this area and anticipate a revised MOU will be promulgated. In the interim, the boundary line below reflects the agreed consensus.

From:

(1) The Georgia Coastline at 30 degrees 50 minutes North Latitude;

(2) Interstate Route 95:
then south along I-95 to:

(3) the US Route 17 Interchange at Becker, FL (N 30 42'41" W 81 40' 18");
then south along US 17 to:

(4) the north bank of the US 17 Broward River Bridge;
then inland along and encircling the two branches of the Cedar Creek keeping to 100 yards from the waterline and returning to:

(5) the south bank of the US 17 Broward River Bridge;
Then south along US 17 to:

(6) the north bank of the US 17 Trout River Bridge;
Then inland along and encircling the Trout River as far inland as the I-295 bridge and the Ribault River as far inland as the SR115 Bridge keeping to 100 yards from the waterline and returning to:

(7) the south bank of the US 17 Trout River Bridge;
Then crossing US 17 at:

(8) Trout River Drive (Jacksonville, FL) (N 30 23' 31" W 81 38' 52");
Then east and southeast along Trout River Drive to:

(9) Buffalo Avenue (Jacksonville FL) (N 30 23' 10", W 81 38' 28");
then south along Buffalo Avenue to:

(10) Evergreen Avenue (Jacksonville FL) (N 30 22' 18", W 81 38' 24");
then south along Evergreen Avenue to:

(11) SR 115 / Alternate US Route 1 (N 30 21' 23", W 81 38' 36");
then east and turning south along SR 115/US 1 to:

(12) SR 115 / Alternate US Route 90;
then east along SR 115/ Alt 90 to:

(13) a point 100 yards inland of the west bank of the St. Johns River at SR 115 / Alt 90;
then inland along and encircling the St. Johns River and designated waterfront facilities as far south as but not including Lake George and including the tributary waters of the Ortega and Cedar Rivers, Doctors Inlet, and Julington creek (but excluding tributaries leading to Crescent Lake and Lack Ocklawaha) keeping to 100 yards from the waterline and returning north to:

(14) a point 100 yards inland of the east bank of the St. Johns River at SR 115 / Alt 90;
then east along SR 115/ Alt 90 to:

(15) University Boulevard (Jacksonville FL);
then north along University Boulevard to:

(16) Fort Caroline Road (Jacksonville FL);
then east along Fort Caroline Road to:

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then south along Girvin Road to:

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<th>Girvin Road (Jacksonville FL); then south along Girvin Road to:</th>
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</thead>
</table>

then east along Atlantic / A1A to:

<table>
<thead>
<tr>
<th>(19)</th>
<th>Atlantic Boulevard / US Route A1A; then east along Atlantic / A1A to:</th>
</tr>
</thead>
</table>

then south along Girvin Road to:

<table>
<thead>
<tr>
<th>(20)</th>
<th>San Pablo Boulevard / FL101A; then south along FL101A to:</th>
</tr>
</thead>
</table>

then south along the county boundary to:

<table>
<thead>
<tr>
<th>(21)</th>
<th>the St. Johns County Boundary; then south along the county boundary to:</th>
</tr>
</thead>
</table>

then south along US 1 to:

<table>
<thead>
<tr>
<th>(22)</th>
<th>US Route 1; then south along US 1 to:</th>
</tr>
</thead>
</table>

then south along I-95 to:

<table>
<thead>
<tr>
<th>(23)</th>
<th>I-95 at the US-1 Marineland Interchange; then south along I-95 to:</th>
</tr>
</thead>
</table>

then south along US 1 to:

<table>
<thead>
<tr>
<th>(24)</th>
<th>US Route 1 at the I-95 Ormond by the Sea Interchange; then south along US 1 to:</th>
</tr>
</thead>
</table>

then east along the latitude line to the sea at:

<table>
<thead>
<tr>
<th>(25)</th>
<th>the latitude line at 28 degrees north latitude; then east along the latitude line to the sea at:</th>
</tr>
</thead>
</table>

then south along US 1 to:

<table>
<thead>
<tr>
<th>(26)</th>
<th>the shoreline at 28 degrees north latitude.</th>
</tr>
</thead>
</table>

Also included are all waterfront facilities even where these facilities extend more than 100 yards from the shore of the St. Johns River. This area is depicted graphically as:
1230 Hazardous Materials Release Area

The boundaries for Sector Jacksonville Hazardous Material release response is the same as for the Coast Guard pre-designated Federal On Scene Coordinator (FOSC) area for oil spills. A Memorandum of Understanding (MOU) between the Coast Guard and the EPA defines the area in which COTP Jacksonville is the pre-designated FOSC for oil spills and Hazardous Material releases.

1240 Offshore Response Area

The northern offshore boundary of the COTP Jacksonville is 30° 50' N Latitude from shore to the offshore extent of the Exclusive Economic Zone (EEZ). The southern offshore boundary is 28° 00' N Latitude from shore to the offshore extent of the (EEZ).

Sector Jacksonville's authority to investigate and prosecute OPA 90 violations in the offshore area extends to 12 miles offshore. Beyond 12 miles, violations of OPA 90 are based on the in-shore threat of pollution in the Jacksonville FOSC area.

1250 Area Spill History

The most pertinent source of information for analyzing historical spills was found to be the Coast Guard Sector Jacksonville pollution reports. Files are kept on every pollution incident, and the date, location, suspected sources, cause, and type, amount, and fate of the material involved are provided for each incident. Files between January 1981- April 1989 were examined to identify all oil spills involving 200 gallons or more, and all chemical incidents involving more than 10 gallons.

Most of the locations are clustered in the industrial area on the western bank of the St. Johns River. Some of the incidents are inland, and a few are on the river or the coast, but most are on the waterfront. There were three coastal groundings, and one spill occurred on the ICW.

Analyses indicated that pollution incidents had occurred at facilities and/or had involved truck, railroad or vessels. Facilities had more incidents than the transportation routes, but facility incidents were typically smaller. In addition, it was determined that petroleum products were involved more frequently than any chemical. Although major ocean spills did not affect the area during this time period, the possibility of such a spill should not be overlooked.

The "high risk" areas for pollution incidents in the Sector Jacksonville zone are:

JACKSONVILLE AREA

1. St. John's River mouth - The Mayport car carrying ferry transits the river regularly. There is also considerable Navy traffic that enters and leaves the Navy Station at Mayport.

2. St. Johns River - There is a high volume of recreational traffic where the Intracoastal Waterway (ICW) meets the St. Johns River (Sister's Creek).

3. St. Johns River – There are four 90 degree turns in the river located at Dames Point, Broward Point, Chashevle Turn, and Commodore Point.

4. St. Johns River Bridges - Channel narrows to 173 feet at the Acosta Bridge and Fuller Warren Bridge.

5. St. Mary's River - There is a high volume of recreational traffic along with the passage of nuclear submarines from the Navy Base at Kings Bay where the ICW meet (Amelia River).
PORT CANAVERAL AREA

1. Vessels, particularly barges, departing the locks into either the Banana River or the port, enter high traffic areas utilized by recreational and commercial vessels. Barges also utilize mooring areas north of the Barge Canal in the Banana River.

2. Navy refueling and ordinance loading operations in the Trident and the Central Turning Basins.

3. NASA Solid Rocket Booster recovery operations and recovery vessel transit through the port and locks.

4. After heavy rains, flood waters coming from Sykes Creek into the Barge Canal have the potential to cause rapid changes in water flow and navigation problems for barges or other vessels transiting the area.

5. The Southeast Shoal off the tip of the Cape is very shallow, and sand bars form out to about a distance of one mile. The amount of sand being deposited or removed by the currents can also vary with the tides or seasons. Ships en route to, or leaving the port often cut through the area rather than continuing out past the sea buoy, and pose a risk of grounding.

AREA MAJOR SPILLS

<table>
<thead>
<tr>
<th>Year</th>
<th>Incident/Spill Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>Container Ship/Tank barge Collision 50,000 Gal.</td>
</tr>
<tr>
<td>1972</td>
<td>Fire/Sinking of M/V OLYMPIC WARRIOR 40,000 Gal.</td>
</tr>
<tr>
<td>1984</td>
<td>Charter Oil Underground Pipeline Spill 15,000 Gal.</td>
</tr>
<tr>
<td>1987</td>
<td>Stranding of M/V FERNPASSAT on jetties 100,000 Gal.</td>
</tr>
<tr>
<td>1987</td>
<td>Valve failure while bunkering 10,000 Gal.</td>
</tr>
<tr>
<td>1988</td>
<td>Tug Sinking 40,000 Gal.</td>
</tr>
<tr>
<td>1993</td>
<td>Overfilled tank on T/S PRIME TRADER 30,000 Gal.</td>
</tr>
</tbody>
</table>

1260 Sensitive Areas

A variety of shoreline types occur within the Jacksonville COTP Zone and are dispersed along both the Atlantic Ocean and inland to the St. Johns River. Throughout the Jacksonville zone, sandy beaches, salt marshes, tidal flats, and mangrove swamps occur along coastal areas. Riverine systems found along the Intracoastal Waterway (ICW), St. Johns River, and associated tributaries include salt marshes, freshwater marshes, hardwood swamps, vegetated riverbanks, eroding bluffs, tidal flats, and mangrove swamps. Numerous shellfish harvesting areas have been identified and designated for commercial harvesting. Seawalls, bulkheads, and riprap structures have been constructed throughout the zone, primarily in urban areas.

Each shoreline type has been assigned a priority ranking for the purpose of identifying shoreline protection strategies in advance of a real-time spill event. Considerations used in prioritizing shoreline types included sensitivity of the habitat to oil, biological significance, economic significance, and cleaning parameters, e.g. ease of cleaning, natural cleaning. The usefulness of this priority classification system is dependent on its simplicity; therefore each shoreline type was assigned to either a high (A), moderate (B), or low (C) sensitivity class. This type of habitat grouping by class should facilitate quick decision making for shoreline protection in the event of a spill. Public lands should receive an added degree of consideration, as these areas have typically been purchased to protect natural areas. Lands are indicated on the sensitivity maps.

As stated above, biological significance was incorporated in the prioritization process; however, these groupings do not necessarily consider the significance of individual locations. Therefore, important bird rookeries, bald eagle nests, and significant nesting beaches for threatened and endangered sea turtles have been indicated on the sensitivity maps. These areas should receive the highest priority for protection, at least during the relevant breeding season. These areas should also receive special consideration when developing cleaning strategies for oiled areas following a pollution event.

Many riverbanks in Northeast Florida contain important archaeological sites. Many of these sites have been mapped by the Division of Historical Resources, Florida Department of State. Due to the sensitivity of these areas, the exact location of...
archaeological sites are often times not made available to the public. Therefore, a pollution discharge that impacts any riverbank in the Jacksonville COTP zone should be reported to the Division of Historical Resources in Tallahassee prior to commencement of cleanup activities. If the State determines that an archaeological site(s) is threatened by either the pollution event or the subsequent clean up, they will provide a professional archaeologist for consultation.

Archaeological sites, such as burial mounds, may occur in woodlands and other sites may occur within the dunes along coastal beaches. Pieces of broken pottery (shards), spear points and arrowheads, mounded dirt, and shell mounds may all serve as clues for the presence of an archaeological site. Often, these clues may go unnoticed by the untrained eye; therefore it is always best to consult the Division of Historical Resources, particularly when a pollutant has impacted a riverbank or coastal areas which heavy equipment is required.

Bureau of Archaeological Research, (8am – 5pm Only)
Tallahassee, FL - Jim Miller
(850) 245- 6444   Fax (850) 245-6436

C.A.R.L.  Archaeologist,
St. Augustine, FL - Chris Newman
(904) 825-5028  Fax (904) 825-5044

1300 Area Committee

This section outlines the functioning of the Area Committee. The section is organized as follows:
1310   Purpose and Objective
1320   Area Committee Organization
1330   Area Committee Roles and Rules of Membership
1340   Area Committee Members

1310 Purpose and Objective

The Area Committee is a spill preparedness and planning body made up of Federal, State, and local agency representatives. The OSC will coordinate the activities of the Area Committee and assist in the development of a comprehensive Area Contingency Plan that is consistent with the NCP.

This Area Contingency Plan describes the strategy for a coordinated Federal, State and local response to a discharge or substantial threat of discharge of oil or a release of a hazardous substance from a vessel, offshore facility, or onshore facility operating within the boundaries of the area of Sector Jacksonville, FL. This plan addresses response to a most probable discharge, a maximum most probable discharge, and a worst-case discharge including discharges from fire or explosion. Planning for these three scenarios covers the expected range of spills likely to occur in this area.

For purposes of this plan, the most probable discharge is the size of the average spill (for the area) based on the historical data. The maximum most probable discharge is also based on historical spill data, and the size of the discharge most likely to occur taking into account such factors as the size of the largest recorded spill, traffic flow through the area, hazard assessment, risk assessment, seasonal considerations, and operating records of facilities and vessels in the area, etc. The worst-case discharge for a vessel is a discharge of its entire cargo in adverse weather conditions. The worst-case discharge from an offshore or onshore facility is the largest foreseeable discharge in adverse weather conditions. These scenarios are described in Appendix 9400.

This plan shall be used as a framework for response mechanisms to evaluate shortfalls and weaknesses in the response structure before an incident, and as a guide for reviewing vessel and facility response plans required by OPA 90, to ensure consistency with applicable regulations. The review for consistency should address, as minimum, economically and environmentally sensitive areas, response equipment (quantity and type) available within the area (this includes Federal,
State, and local government and industry owned equipment), response personnel, equipment and personnel needs compared to those available, protection strategies, etc.

1320 Area Committee Organization

The following is a listing of those federal, state and local agencies represented on the Sector Jacksonville Area Committee.

**FEDERAL AGENCIES**
- Environmental Protection Agency
- Federal Emergency Management Agency
- National Aeronautics and Space Administration
- National Oceanic and Atmospheric Administration
- National Park Service
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- U.S. Navy

**STATE AGENCIES**
- Florida Department of Environmental Protection
- Florida Fish and Wildlife Conservation Commission
- Georgia Department of Natural Resources

**LOCAL AGENCIES**
- Brevard County Emergency Management Division
- Local Emergency Planning Committee, District IV
- St. Johns County Department of Public Safety
- St. Johns River Water Management District
- Volusia County Department of Environmental Management
- City of Cocoa Beach Department of Public Works
- City of Daytona Beach Department of Public Works
- City of Jacksonville Regulatory and Environmental Services Dept.
- City of Jacksonville Department of Fire and Rescue
- City of Melbourne, Fire Department
- City of Palatka Fire Department
- City of Titusville Fire and Emergency Services

1330 Area Committee’s Role and Members

The primary role of the Area Committee is to act as a planning body. Area Committees are made up of experienced environmental/response representatives from Federal, State and local government agencies each with definitive responsibilities for the area's environmental integrity. Active participation by Governors and county representatives in the Area Committee planning process is encouraged. Each member is empowered by their agency to make decisions on behalf of the agency and to commit the agency to carrying out roles and responsibilities as described in this plan. The pre-designated Federal On-scene Coordinator for the area will serve as chairman of the Committee. He/she will designate the vice-chairman, select the Committee members, and provide general direction and guidance for the Committee. The OSC should solicit the advice of the Regional Response Team (RRT) to determine appropriate representatives from federal and state agencies. The Area Committee is encouraged to solicit advice, guidance, or expertise from all appropriate sources and establish subcommittees as necessary to accomplish the preparedness and planning tasks. Subcommittee participants may include facility owners/operators, shipping company representatives, cleanup contractors, emergency response officials, marine pilot associations, academia, environmental groups, consultants, response organizations and concerned citizens. The OSC will appoint the subcommittee members. The OSC directs the Area Committee's development and maintenance of the
Area Contingency Plan. The Area Committee will meet annually to review the ACP. Formal minutes of Area Committee meetings will be posted on the Homeport web-site.

1330.1 Executive Steering Committee

The Executive Steering Subcommittee was established in 1998 to guide the Area Committee. It provides the necessary oversight for the Area Committee, which allows for more efficient operation. Subcommittee members review the area plans and provide guidance on the development of strategic goals for the ACP. In addition, they develop and prioritize work lists, establish new subcommittees as necessary, and task subcommittee as appropriate.

The Executive Steering Committee shall have the following representatives:

- Chairman, FOSC
- Vice Chairman, SOSC
- Scientific Support Coordinator
- NOAA Hazmat
- Preparedness Subcommittee Chairman
- Scientific Support Subcommittee Chairman
- Resource Subcommittee
- Industry Representative

1330.2 Scientific Support Subcommittee

The Scientific Support Subcommittee is tasked with examining environmentally sensitive areas, developing response strategies for use in these sensitive areas, prioritizing sensitive areas for protection, and developing site-specific response strategies, including the possibility of pre-staging response equipment. In addition, the subcommittee will identify all appropriate countermeasures, mechanical and others such as dispersants, chemical agents, and other spill mitigating substances or devices, including pre-approval or disapproval, for offshore and shoreline areas. This includes mapping sensitive areas with natural collection sites, boom sites and specific response strategies. Environmentally sensitive areas will include fish and wildlife areas, sensitive areas (slow to recover), and human use areas (water intakes, archaeological and tribal use areas, recreational areas, marinas, aquaculture, etc.). Scientific Support Subcommittee is currently consists of SME’s within the Area Committee.

1330.3 Preparedness Subcommittee

The Preparedness Subcommittee is tasked with developing strategies for responding to spills, contingency planning, and drills and exercises.

1330.4 Resources Subcommittee

The Resource Subcommittee is comprised of a chair and representatives from the USCG, FDEP, and industry. As required, expertise will be sought from the general response community based on topic and area of expertise. All information will be based on input from the Scientific Support Committee and Resource Committee. The Resources Subcommittee is tasked with maintaining lists of all resources required to respond to an oil spill event, including, but not limited to OSROs, major response equipment, logistics, personnel, information resources, and special forces.
# 1340 Area Committee Members

Updated contact list phone numbers for committee members in [Section 9200](#)

## FEDERAL AGENCIES

<table>
<thead>
<tr>
<th>Agency</th>
<th>Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>USCG SECTOR JACKSONVILLE</td>
<td>Sector Commander Contingency Planning and Readiness Department Head Response Department Head Prevention Department Head</td>
</tr>
<tr>
<td>U.S. EPA, REGION IV</td>
<td>Emergency Response Coordinator</td>
</tr>
<tr>
<td>U.S. DEPARTMENT OF COMMERCE</td>
<td>NOAA Hazmat Officer Natural Resource Trustee</td>
</tr>
<tr>
<td>U.S. FISH AND WILDLIFE SERVICE</td>
<td>Damage Assessment Spill Coordinator</td>
</tr>
<tr>
<td>FEDERAL EMERGENCY MANAGEMENT AGENCY</td>
<td>Hazardous Materials Program Specialist</td>
</tr>
<tr>
<td>U.S. NAVY REGIONAL, COORDINATOR</td>
<td>Environmental Coordinator</td>
</tr>
<tr>
<td>NATIONAL PARK SERVICE</td>
<td>Biologist</td>
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</table>

## STATE AGENCIES MEMBER

<table>
<thead>
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<tr>
<td>OFFICE OF GOVERNOR RICK SCOTT STATE OF FLORIDA THE CAPITOL</td>
<td>Chief, Construction- Operations Branch</td>
</tr>
<tr>
<td>U.S. ARMY CORPS OF ENGINEERS</td>
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</tbody>
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**CLASSIFICATION:** UNCLASSIFIED

**CONTROLLING AUTHORITY:** CAPT T.G. ALLAN, JR.
Tallahassee, FL 32399-0001

FLORIDA DEPARTMENT OF ENIRONMENTAL PROTECTION, NORTEAST DISTRICT
7825 Baymeadows Way, Suite 200B
Jacksonville, FL 32256-7577

FLORIDA DEPARTMENT OF ENIRONMENTAL PROTECTION, CENTRAL DISTRICT
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803-3767

FLORIDA FISH & WILDLIFE CONSERVATION COMMISSION
Species Conservation Planning Section
3377 East U.S. Highway 90
Lake City, FL 32055

FLORIDA FISH & WILDLIFE CONSERVATION COMMISSION
1239 S.W. 10th Street
Ocala, FL 34474

GEORGIA DEPARTMENT OF NATURAL RESOURCES, ENVIRONMENTAL PROTECTION DIVISION
205 Butler St., SE Floyd Tower
Atlanta, GA 30334

LOCAL GOVERNMENTAL AGENCIES

BREVARD COUNTY
2725 St. Johns St., Bldg. B
Melbourne, FL 32940
Director, Emergency Management/Communications Division

LEPC DISTRICT IV
6850 Belfort Oaks Place
Jacksonville, FL 32216
LEPC Staff Coordinator

CITY OF JACKSONVILLE
107 N. Market Street
Jacksonville, FL 32202
Chairman, Local Emergency Planning Committee NE, FL

ST. JOHNS COUNTY
4455 Avenue "A" Suite 100
St. Augustine, FL 32085
Director of Public Safety

COUNTRY OF VOLUSIA
49 Keyton Drive
Daytona Bch., FL 32720
Director, Department of Environmental Management

CITY OF COCOA BEACH
2 South Orlando Avenue
Cocoa Beach, FL 32932
Director, Public Works

Coastal Protection Coordinator
Environmental Specialist
Emergency Response Coordinator
Environmental Manager
Regional Biologist
Environmental Specialist
Regional Biologist

Version Date: V_2.0 01Jan14
Classification: Unclassified
Controlling Authority: Area Committee
Issuing Authority: Capt T.G. Allan, Jr.
Page: 1000-18
OTHER MEMBERS
Other members of the Area Committee include local industry, local response organizations, and concerned citizens. Their membership and participation changes and is not recorded in the ACP.

1350 Revision & Update Requirements
Area Contingency Plans shall be reviewed annually with major revisions occurring every three (3) years. Key areas of the plan to be reviewed annually include: emergency notification lists, response equipment information (type and amount of available equipment), sensitive areas, hazard/risk assessment of the area, response strategies (changes based on new technologies or equipment, etc), and/or dispersants approval. Major revisions will be based on Commandant or District mandated revisions or modifications, which would substantially impact the format or content of the Plan. Any changes to the plan must be noted on the record of changes page. All changes will be submitted to Commander, Seventh Coast Guard District for approval. Once changes are approved Sector Jacksonville will issue an instruction for a page change for distribution.

1400 National Response Framework
This section describes the National Response Framework in detail. The section is organized as follows:
   1410 National Response Framework Purpose
   1420 National Response Policy

1410 National Response Framework Purpose
The National Response Framework (NRF) was developed to coordinate all government agencies with responsibility for environmental protection, in a focused response strategy for the immediate and effective clean up of oil or hazardous substance discharge. The NRF is a three tiered response and preparedness mechanism that supports the pre-designated Federal OSC in coordinating national, regional, local government agencies, industry, and the responsible party during response.

The NRF supports the responsibilities of the OSC, under the direction of the Federal Water Pollution Control Act's federal removal authority. The OSC 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 or hazardous substance discharge.

The NRF is designed to support the OSC and facilitate responses to a discharge or threatened discharge of oil or a hazardous substance. The NRF is used for all spills, including a Spill of National Significance (SONS). When appropriate, the NRF is designed to incorporate a unified command and control support mechanism (unified command) consisting of the OSC, the State's OSC, and the Responsible Party's Incident Manager. The unified command structure allows for a coordinated response effort that takes into account the Federal, State, local and responsible party concerns and interests when implementing the response strategy. A unified command establishes a forum for open, frank discussions on problems that must be addressed by all parties with primary responsibility for oil and hazardous substance discharge removal. A unified command helps to ensure a coordinated, effective response is carried out and the particular needs of all parties are taken into consideration. The OSC has the ultimate authority in a response operation and will exert this authority only if the other members of the unified command are not present or are unable to reach consensus within a reasonable time frame. During hazardous substance release responses in which a local agency assumes a leading role, the local agency may assume one of the unified commander roles when a unified command is used. During responses to oil spills, local agencies are not usually involved in the unified command; however they provide agency representatives who interface with the command structure through a Liaison Officer or the State representative. When a unified command is used, a Joint Operations Center and Joint Information Bureau shall be established. The Joint Operations Center should be located near and convenient to the site of the discharge. All responders (Federal, State, local and private) should be incorporated into the OSC's response organization at the appropriate level.

1410.1 SONS

A Spill Of National Significance (SONS) is a rare, catastrophic spill event that captures the nation's attention due to its significant potential or actual adverse environmental impact. A SONS is defined as a spill which greatly exceeds the response capability at the local and regional levels, that due to its size, location, and actual or potential impact on the environment, requires extraordinary coordination of Federal, State, local and private resources to contain and clean up. Only the Commandant of the Coast Guard or the Administrator of the EPA can declare a SONS.

The response to a SONS event must be a coordinated response that integrates the OSC's response organization with the SONS response organization. The SONS organization is addressed in Commandant Note (COMDTNOTE) 16465, and is outlined below. In times of SONS, the National Incident Task Force (NITF) comes into play.

The NITF is a national organization, with representatives from federal, state and local government agencies and the private sector working together to respond to and clean up the spill. Existing crisis action organizations will be available to provide support and information to the NITF as necessary. For example, the figure below illustrates the connection and relationship between the Coast Guard's internal crisis action system for spill response and the NITF.
1410.2 EPA Framework for a Model Waste Management Plan for Oil Spills of National Significance (SONS)

EPA FRAMEWORK FOR A MODEL
WASTE MANAGEMENT PLAN
FOR OIL SPILLS OF NATIONAL SIGNIFICANCE (SONS)
June 19, 2013
EPA FRAMEWORK FOR A MODEL WASTE MANAGEMENT PLAN FOR OIL SPILLS OF NATIONAL SIGNIFICANCE (SONS)

Purpose

The purpose of this framework for a model waste management plan is to provide to EPA emergency managers, planners, and responders the key elements of waste management planning for an oil discharge that is declared a Spill of National Significance (SONS). The National Contingency Plan contingency planning process utilizes Area Committees comprised of members from federal, state, territorial, local, levels of government (e.g., EPA, U.S. Coast Guard, On Scene Coordinators (OSCs), Regional Response Teams) as well as Non-Governmental Organizations. Other waste management resources (e.g., petroleum industry, waste management facility owners/operators) may also be useful to include in the planning process. These Area Committees are involved in developing Regional Contingency Plans (RCPs) and Area Contingency Plans (ACPs) in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP, 40 CFR Part 300). A SONS is “a spill that, due to its severity, size, location, actual or potential impact on the public health and welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local, and responsible party resources to contain and clean up the discharge” (NCP, 40 CFR§300.5).

Experience with major oil discharges has shown that many of the waste management planning elements are similar and can be planned for ahead of time, and then tailored to the site-specific spill conditions at the time of the SONS. Although an oil SONS will likely involve a responsible party, past incidents have shown that these key elements should be planned for by all stakeholders and be documented within a pre-incident waste management plan and made part of appropriate RCPs and/or ACPs. The initial step for regional emergency managers, planners and responders in preparing this plan should be to collect existing public and private sector emergency response plans that may contain some of the waste management elements that are identified in this document. For example, Debris Management Plans commonly utilized for natural disasters and Facility Response Plans as required in 40 CFR §112.20 for certain oil related exploration or production facilities, as well as other emergency response plans, may provide some of the information needed to create a waste management plan for a SONS.

Application

This framework for a model waste management plan for a SONS is intended to reflect the necessary planning elements to prepare for the waste management demands of a SONS as part of inland and coastal RCPs and ACPs. The creation of this plan is part of a four step waste management planning process that covers the spectrum from (1) pre-incident planning activities, to (2) pre-incident plan development, (3) training on the various elements of the plan and execution of the plan through operational and tabletop exercise, and (4) incident-specific implementation (Figure 1). Most of the effort in effective waste management planning for a SONS should take place in the pre-incident stage, so that efforts during an incident can focus on tailoring the pre-incident plan to incident specific conditions as the response unfolds. This framework reflects actual lessons learned and actions taken by the EPA and the U.S. Coast Guard (USCG) during the Deepwater Horizon (DWH) SONS in 2010. This framework also is intended to fulfill a corrective action associated with the EPA’s Office of Inspector General Report No. 11-P-0706, “EPA Should Clarify and Strength its Waste Management Oversight Role With Respect to Oil Spills of National Significance,” September 26, 2011.
Figure 1. Four Step Waste Management Planning Process

Plan/Do the following:
- Form planning team with Federal, state, local & tribal WM officials
- Assume worst case oil SONS scenario
- Identify key resources for the development of the pre-incident WMP
- Determine regulatory issues/considerations
- Review existing plans
- Assess WM mitigation measures

Develop the following:
- Purpose/Scope & key contacts
- WM requirements, waste/material types & quantities anticipated
- WM strategies, facilities/assets & resources needed for the strategy
- Waste/material tracking & reporting system
- WM oversight activities
- Community outreach/communications strategy
- Health & safety considerations

Step 1: Pre-Planning Activities
- Purpose/Scope & key contacts
- WM requirements, waste/material types & quantities anticipated
- WM strategies, facilities/assets & resources needed for the strategy
- Waste/material tracking & reporting system
- WM oversight activities
- Community outreach/communications strategy
- Health & safety considerations

Step 2: Pre-Incident WMP
- Tailor the Pre-Incident WMP to incident-specific conditions
- Present Incident-Specific WMP to the Unified Command
- Notify WM facilities of needs & exercise contract support where needed
- Implement community outreach plan
- Track WM operations & report progress

Step 3: WMP Review, Maintenance, Execution & Training
- Review & update the WMP regularly
- Meet with all parties involved in the WMP
- Schedule & perform WMP exercises
- Develop training plan
- Incorporate WM lessons learned, after action reports, & improvements plans

Step 4: Incident-Specific WMP Implementation
- Review & update the WMP regularly
- Meet with all parties involved in the WMP
- Schedule & perform WMP exercises
- Develop training plan
- Incorporate WM lessons learned, after action reports, & improvements plans
EPA FRAMEWORK FOR A MODEL
WASTE MANAGEMENT PLAN
FOR OIL SPILLS OF NATIONAL SIGNIFICANCE (SONS)

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1.0 PURPOSE, SCOPE & KEY CONTACTS

Purpose and scope of the waste management plan

A waste management plan for an Oil SONS response should be a dynamic document that can expand with the incident as it unfolds and is robust enough to address a worst case scenario. It should include appendices to address state-specific waste management requirements. The purpose and scope of a waste management plan for a SONS response is to:

- Protect human health and the environment associated with waste management activities throughout the affected area;
- Identify waste management regulatory, staffing, and resource needs across all affected states and regions;
- Identify the types, and quantities, of wastes that are likely to be generated from a SONS (estimates can be used from past oil spill experiences);
- Develop a waste sampling and analysis process to characterize the wastes;
- Establish waste management strategies for each waste type, including collection, segregation, staging, temporary storage, minimization, treatment, and disposal;
- Identify and assess waste recycling, treatment, storage, and disposal facilities that can process the amounts of waste anticipated;
- Identify waste acceptance criteria, sampling, labeling, and tracking requirements for each waste management facility that may be utilized in the waste management response;
- Develop a transportation plan describing how wastes should be transported from their point of generation to a waste management facility;
- Establish waste tracking and reporting processes to provide transparency in waste management operations;
- Establish waste management oversight activities and an exit strategy for waste management activities;
- Establish community outreach and communications processes; and
- Establish health and safety practices in support of waste management activities.

Key federal, state, local, tribal, and territorial contacts

This section should identify the key points of contact for the federal, state, local, tribal, and territorial governments (governments), as well as key asset managers, including owner/operators of key public and private sector waste management facilities. It should include emergency phone numbers and emails of the appropriate waste management officials that will be coordinating and executing the waste management plan.

SECTION 2. WASTE MANAGEMENT REQUIREMENTS, WASTE TYPES & QUANTITIES

This section of the waste management plan should attempt to identify the major waste management requirements for each type of waste that may be associated with a SONS. This should include applicable requirements at the local, state, and federal levels. What makes a SONS unique is that it can span a large geographical area, covering different response regions, territories, and states. While there are federal standards for management of solid and hazardous wastes, most state programs have been approved or
authorized to operate in lieu of the federal program. States may also have regulations or requirements that are more stringent or broader in scope than federal requirements. As a result, it is important that emergency
managers, planners and responders identify and reflect these differences in waste management requirements into waste management plans.

**State, local, tribal, and territorial waste management requirements**

State, local, tribal, and territorial waste management resources may be overwhelmed in a SONS response. The magnitude of wastes generated, the wide area affected, and the type of wastes generated may make it difficult to find public and private sector waste management facilities that can or will accept the waste. Therefore, it is important that waste management plans are robust enough to address the magnitude of response needed for a SONS response. States and local governments may already have in place administrative orders or emergency declarations that address state or local waste management requirements and operations in response to a SONS. These orders and declarations may already address procedures for establishing staging areas, listing potential landfill sites, identifying waste manifest signature delegation authority for the generator, and prescribing the types of materials that may be sent to particular types of facilities. These orders and declarations may also allow certain additional materials to be disposed of in these facilities, consistent with state laws and any additional measures that need to be taken for this disposal to occur. As a result, it is important that state, local, tribal, and territorial waste management requirements and any private sector waste management plans be reflected in the development of a waste management plan as part of the RCPs and/or ACPs for each state and region. The waste management plans should also be flexible and acknowledge that as the response unfolds affected governments may amend or issue new administrative orders or emergency declarations.

**Waste and material types**

Previous large oil spills have provided insights into the type of wastes to expect from a SONS as well as the typical approaches utilized in response to a SONS. However, spills may have unique elements that factor into waste management decisions. These include differences in the physical and chemical properties of the products involved (e.g., light crude, heavy crude, refined oil, shale oil), how the oil is released (e.g., release from a vessel, well blowout, or pipeline break), weather conditions, the use of different types of dispersants, and environmental conditions. The typical waste materials from a SONS are shown in Table 1 below.

**Table 1. Waste/Materials Types from a SONS**

<table>
<thead>
<tr>
<th>WASTE TYPE</th>
<th>WASTE DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oily Solids</td>
<td>Oil-contaminated material that may include debris, soil, sand, boom, and vegetation; weathered oil (e.g., tar balls); oily personal protective equipment (PPE); disposal equipment; sorbents</td>
</tr>
<tr>
<td>Non-oily Solids</td>
<td>Non-oiled material that has been recovered from support operations of the cleanup activities, including office trash, non-oiled beach debris, general garbage, non-oiled vegetation</td>
</tr>
<tr>
<td>Medical Waste</td>
<td>Sharps, syringes, PPE, &amp; other medical-related material generated from operations at wildlife rehabilitation centers or command centers</td>
</tr>
<tr>
<td>Category</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Oily Liquids</strong></td>
<td>Oil and water mixtures or emulsions (e.g., from skimming or oil recovery operations)</td>
</tr>
<tr>
<td><strong>Liquids</strong></td>
<td>Primarily water that may have an oily sheen or contain minor amounts of free oil droplets (e.g., onshore decanted water, storm water, decontamination water, treated water)</td>
</tr>
<tr>
<td><strong>Recyclable/Recoverable Materials</strong></td>
<td>Plastic bottles, hard boom, aluminum cans, scrap metal, glass, cardboard, soft absorbent boom</td>
</tr>
<tr>
<td><strong>Incident/field-related Laboratory Waste</strong></td>
<td>Incident-related wastes generated by decontamination of the sample collection equipment and analysis of samples at on-site incident-related laboratories, including designated research vessels</td>
</tr>
<tr>
<td><strong>Hazardous Waste</strong></td>
<td>Non-exempt oil and gas production wastes that are listed hazardous wastes or exhibit hazardous waste characteristics</td>
</tr>
<tr>
<td><strong>Animal Carcasses</strong></td>
<td>Animal carcasses identified during shoreline cleanup or generated from operations at the wildlife rehabilitation centers</td>
</tr>
<tr>
<td><strong>Laboratory Analysis Waste</strong></td>
<td>Analytical sample wastes generated from the analyses of samples at fixed analytical laboratories</td>
</tr>
</tbody>
</table>

**Quantities of different waste types anticipated**

Knowledge of the type and size of prior oil spills can be valuable in estimating the quantities and types of wastes generated compared to the amount of oil released. The quantity and types of wastes anticipated are also influenced by the physical and chemical properties of the products, the type of release, weather conditions, the use of dispersants, and environmental conditions. The International Petroleum Industry Environmental Conservation Association's (IPECA) historical data (Figure 1) show that oil spills impacting the shoreline can produce up to 30 times more waste than the volume of oil spilled.¹
2 Guidelines for Oil Spill Waste Minimization and Management, IPIECA, 2004, pg.3; http://www.ipieca.org/library?tid=8&tid_1=12
This information, along with the breakdown of different types of waste generated during previous oil spills (Table 2), provides an excellent tool for forecasting the quantities of waste that are likely to be generated during a SONS response. This information also assists in planning for the sampling and analysis for these waste types and quantities.

Table 2. Waste Types & Quantities for the 2010 Deepwater Horizon Oil Spill

<table>
<thead>
<tr>
<th>WASTE TYPE</th>
<th>TOTAL</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oily Liquid(^a)</td>
<td>459,781</td>
<td>Oil Barrels</td>
</tr>
<tr>
<td>Liquids(^a,(^b)</td>
<td>949,468</td>
<td>Oil Barrels</td>
</tr>
<tr>
<td>Oily Solids(^a,(^b)</td>
<td>96,279</td>
<td>US Tons</td>
</tr>
<tr>
<td>Solid Waste(^a)</td>
<td>13,911</td>
<td>US Tons</td>
</tr>
<tr>
<td>Recyclables/ Recoverables</td>
<td>4,769</td>
<td>US Tons</td>
</tr>
</tbody>
</table>

\(^a\) Material that has been manifested to a recovery or disposal facility  
\(^b\) Recently verified past data has been incorporated into this report

Source: Deepwater Horizon Website; Data as of December 31, 2011
Waste sampling and analysis

Standard sampling and analysis methodologies (Table 3), frequencies of sampling, and data reporting of each of the anticipated waste streams should be identified in a Waste Sampling and Analysis Plan as part of the overall Waste Management Plan. This will allow responders to determine the characteristics of the waste and identify appropriate receiving waste management facilities. This is important because waste management facility permits typically contain facility-specific waste acceptance criteria\(^2\) and waste generators may be required to complete facility-specific waste profiles before the waste management facility can accept the waste. Sampling and analysis of waste streams also provide information necessary for developing Health and Safety plans for response workers, waste management facility operators and waste haulers. As the response unfolds, it may be appropriate to amend the Sampling and Analysis Plan to reflect potential changes in waste streams.

Table 3. Example of a Waste Sampling and Analysis Table Common to an SONS Response

<table>
<thead>
<tr>
<th>Matrix</th>
<th>Description</th>
<th>Sampling Frequency</th>
<th>Analysis</th>
<th>Handling</th>
<th>Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid</td>
<td>Oil-impacted material that may include debris, soil, sand, vegetation; solid weathered oil (e.g., tar balls); PPE; disposal equipment; sorbents; etc. Material shall be drained of recoverable oil, as practicable (oil shall be collected for potential re-processing or other use).</td>
<td>Once per week</td>
<td>TCLP SW 846 1311/ VOCs by SW 846 8260C&lt;br&gt;TCLP SW 846 1311/ SVOCs by SW 846 827070D&lt;br&gt;TCLP SW 846 1311/ Metals by SW 846 6010C &amp; SW846 7471A&lt;br&gt;Paint Filter Test SW846 Method 9095</td>
<td>Appropriate containers (i.e., lined or sealed) transported by approved waste hauler</td>
<td>Approved disposal facility</td>
</tr>
<tr>
<td>Non-Oily solids that may include municipal waste material that has been recovered from support operations of the cleanup activities. Including trash and garbage.</td>
<td>None required</td>
<td>None</td>
<td>Containers transported by approved waste hauler</td>
<td>Approved disposal facility</td>
<td></td>
</tr>
</tbody>
</table>
See, for example, August-Richmond County Municipal Solid Waste Landfill Waste Acceptance Criteria, Feb 2007; http://www.augustaga.gov/DocumentView.aspx?DID=426
Liquid

Water, oil and emulsion collected during skimming operations, by vacuum truck from decontamination facilities, management of storm water at land-based decontamination sites, etc. This category also includes excess decontamination water that accumulates during the closed loop decontamination process.

As needed basis based on final disposition of liquid

TCLP SW 846 1311/ VOs by SW 846 8260C
TCLP SW 846 1311/ SVOCs by SW 846 827070D
TCLP SW 846 1311/ Metals by SW 846 6010C & SW846 7471A
Ignitability by SW846 Chapter 7

Appropriate container (e.g., vacuum truck) transported by approved waste hauler. Storage in frac tanks at staging area prior to transport. Barge transportation and storage.

Approved recovery/disposal facility

Further information regarding a waste sampling and analysis plan for a SONScan be found at: http://usresponse.bp.com/external/content/document/2911/963703/1/Appendix_B_Waste_Sampling_Plan.pdf

Waste management quality assurance

A waste management quality assurance project plan (QAPP) may also be useful for SONS response because of the amount of waste management data that will be generated from sampling and analysis, as well as for the long period of time over which this data maybe collected. A QAPP lays out waste management sampling and analysis objectives; the organization of and responsibility for waste management sampling and analysis efforts; data quality objectives; quality control measures; sampling and analysis procedures; calibration procedures; preventive maintenance; data reduction, validation and reporting; and performance and system audits. Table 4 contains information commonly included in a QAPP to ensure that the quality measures inherent with specific waste analytical methods are adhered to during sampling and analysis.

Table 4. Example of Analytical Quality Assurance Criteria Common to an Oil SONS

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Analytical Methods</th>
<th>Matrix</th>
<th>Container</th>
<th>Preservation</th>
<th>Minimum Sample Volume</th>
<th>Holding Time to TCLP Extraction</th>
<th>Holding Time from TCLP Extr to Analytical Prep</th>
<th>Holding Time for Analytical Prep to Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCLP VOCs</td>
<td>SW846 1311/8260C</td>
<td>Solid or Liquid</td>
<td>Glass</td>
<td>≤ 6°C</td>
<td>16 oz</td>
<td>14 days</td>
<td>NA</td>
<td>14 days</td>
</tr>
<tr>
<td>TCLP SVOCs</td>
<td>SW846 1311/8270D</td>
<td>Solid or Liquid</td>
<td>Glass</td>
<td>≤ 6°C</td>
<td>16 oz</td>
<td>14 days</td>
<td>7 days</td>
<td>40 days</td>
</tr>
<tr>
<td>TCLP Metals</td>
<td>SW846 1311/6010C</td>
<td>Solid or Liquid</td>
<td>Glass</td>
<td>≤ 6°C</td>
<td>16 oz</td>
<td>180 days</td>
<td>180 days</td>
<td>180 days</td>
</tr>
<tr>
<td>TCLP</td>
<td>SW846</td>
<td>Solid or Liquid Waste</td>
<td>Glass</td>
<td>≤ 6°C</td>
<td>16 oz</td>
<td>28 days</td>
<td>28 days</td>
<td>28 days</td>
</tr>
<tr>
<td>------</td>
<td>-------</td>
<td>-----------------------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Mercury</td>
<td>1311/7470A</td>
<td>Solid or Liquid Waste</td>
<td>Glass</td>
<td>≤ 6°C</td>
<td>16 oz</td>
<td>28 days</td>
<td>28 days</td>
<td>28 days</td>
</tr>
</tbody>
</table>
SECTION 3. STRATEGIES, FACILITIES & ASSETS

Emergency managers, planners and responders should evaluate waste management strategies, facilities, and assets (e.g., equipment, supplies, personal protective equipment) to ensure that they can handle the anticipated waste types and quantities to be generated from cleanup operations.

Waste management strategies for a SONS

Emergency managers, planners and responders should pre-identify best waste management practices during a SONS, including, as applicable:

a. Identify potential impact sites before oil has reached the shoreline and clear them of debris to reduce the amount of contaminated wastes to be handled;
b. Segregate different types of wastes (liquid, solid, debris, personal protective equipment (PPE), hazardous, non-hazardous) wherever possible;
c. Implement procedures to prevent spills, rainwater infiltration and runoff at waste management sites;
d. Label all waste containers and identify the location they came from;
e. Clean and reuse recovery equipment whenever possible, rather than discarding after one use;
f. Use reusable personal protective equipment wherever possible;
g. Reduce secondary contamination from the spread of oil by people, transportation, or equipment;
h. Place solid waste in lined and bermed areas for subsequent management;
i. Place oil-contaminated materials in closed-top, 55 gallon drums, sealed plastic bags, or roll-off boxes for temporary storage, all segregated within lined/bermed secondary containment areas;
j. Avoid mixing any oil or oily wastes with non-oiled waste and avoid mixing hazardous and non-hazardous wastes;
k. Prevent oily wastes from contaminating soil by using liners underneath drums, tanks and decontamination sites;
l. Use sorbent pads and booms until they become moderately oiled;
m. Minimize day-to-day non-hazardous waste generated as part of response activities; and
n. Properly categorize, segregate, inventory, and transport wastes accumulated in temporary storage locations.
Applying waste management strategies in response to a SONS

A hierarchy common to waste management operations is that source reduction is the preferred option, followed by reuse or recovery and treatment, with disposal being the least desirable and often the most expensive option (Figure 2). Applying this hierarchy to an oil SONS waste management plan would commonly result in these best waste management practices:

**Figure 2. Waste Management Hierarchy and Practices**

![Image of waste management hierarchy]

Emergency managers, planners and responders can use these best waste management practices (Figure 2) to develop a strategy for waste management activities. They may develop a waste and material handling flow diagram to identify a “cradle to grave” process flow of waste management activities for a SONS to include where waste will be generated, what waste will be generated, how much will be generated, the rate of waste generation, and the physical state (solid, liquid, gas) of the waste. It may also reflect the proper waste characterization and management approaches that meet all applicable government requirements. The figure below (Figure 3) represents a high level process flow of materials management for a SONS. A flow diagram like this enables waste management decisions for a SONS based upon an understanding of the incident, the release, and the overall response strategies.
Many waste treatment, storage and disposal facilities and other assets (equipment, supplies, etc.) may be needed to support the types and quantities of waste associated with a SONS. These assets may be needed over a large geographic area, often including facilities and assets outside of the area directly affected by the spill. As a result, emergency managers, planners and responders may further define this high level strategy to more specifically identify the resources and assets required. Table 5 below provides a useful way of beginning the process of assessing the resources that will be needed to support the high level strategy outlined in Figure 3.
Table 5. Resource Needs to Support Waste Management Strategies for an SONS Response

<table>
<thead>
<tr>
<th>Generation Location or Retrieval Activity</th>
<th>Waste/Material Type</th>
<th>Verification / Manifesting</th>
<th>Transport</th>
<th>Quantity and Quality?</th>
<th>Disposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vessels of Opportunity Deployment Locations</td>
<td>Solid Wastes</td>
<td>On-site consolidation, transfer to waste staging area for further consolidation and manifesting</td>
<td>Roll-off box</td>
<td>Generally not sufficient quantity of uniform material to be considered for recycling</td>
<td>Approved landfill</td>
</tr>
<tr>
<td>On-Scene Decontamination Stations</td>
<td>Solid Wastes</td>
<td>On-site consolidation, transfer to waste staging area for further consolidation and manifesting</td>
<td>Roll-off box (solids)</td>
<td>Generally not sufficient quantity of uniform material to be considered for recycling</td>
<td>Approved landfill (solids); approved recycling, treatment, or disposal facility (liquids); water is separated, treated and discharged via POTW</td>
</tr>
<tr>
<td>Shore-line Cleanup Operations</td>
<td>Solid Wastes</td>
<td>On-site consolidation and manifesting, or transfer to waste staging area for further consolidation and manifesting</td>
<td>Roll-off box</td>
<td>City solids that are uniform and have sufficient quantity of oil for recovery are sent for recycling</td>
<td>Approved landfill (solids); oily solids may segregated for potential future recovery efforts</td>
</tr>
<tr>
<td>Skimming Operations</td>
<td>City Solids</td>
<td>On-site consolidation, transfer to waste staging area for further consolidation and manifesting</td>
<td>Barge or vessel</td>
<td>Materials that are uniform and have sufficient quantity of oil for recovery are sent for recycling</td>
<td>Approved landfill (solids); approved recycling facility; oily solids (e.g., sorbent boom) may be concentrated and separated oil sent for recycling; approved recycling, treatment, or disposal facility (liquids); water is separated, treated and discharged via POTW</td>
</tr>
</tbody>
</table>

Waste management facilities & assets typically required for a SONS response

The history of oil spill responses shows the potential need for the following waste management facilities and equipment, which should be pre-identified and planned for to support a SONS response:

a. Waste staging and storage locations;
b. Equipment staging and storage locations;
c. Decontamination stations (for boom, vessels, personnel, equipment, recovered water, etc);

d. Oil recovery and recycling facilities;

e. Water recovery facilities;

f. Solidification facilities;

g. Wastewater treatment facilities;

h. Hazardous and solid waste treatment facilities and landfills;

i. Waste transfer stations;

j. Deep well injection facilities;

k. Medical waste incinerators;

l. Municipal solid waste or hazardous waste incinerators;

m. Vacuum trucks;

n. Barges, private boats, and other vessels;

o. Off-road vehicles, aircraft, helicopters;

p. Oil skimming devices; oil tankers or barges for collecting skimmed oil;

q. Oil/water pumps, separators, tanks and trucks;

r. Waste and dump trucks, front end loaders;

s. Roll off bins;

t. Plastic bags, carboys, booms, spill control equipment;

u. Sampling equipment and supplies; and

v. Lots of PPE.

To manage and monitor a waste management operation during a SONS, the Federal On-Scene Coordinator (FOSC) may want to maintain tables\(^3\) to track all of the waste management facilities utilized during the response. The FOSC may find it helpful to maintain maps\(^4\) showing the location of these facilities on a publicly accessible website to enhance public transparency.

To ensure that the proper waste management method is applied for each waste type, emergency managers, planners and responders should evaluate the technical considerations for each of the waste management techniques above, and any others to be incorporated in the waste management plan.\(^5\) Fortunately, there is a substantial amount of information available from past large oil spills on the capacity, uses, equipment needs, as well as the pros and cons for each of these different methods.\(^6\) Additional waste management planning resources are included at the end of this model waste management plan.

In addition to the type of waste management facilities needed, it may be useful to preliminarily identify specific facilities that may be used during the response. As can be seen from Figure 4, there are not many hazardous waste management facilities across the country. So, depending upon where the incident occurs and the types of wastes generated, transporting waste to an appropriate facility may be a significant issue. In addition, each waste management facility has operating permits issued by the appropriate federal or state waste management authority. Each facility has specific waste acceptance criteria and waste characterization requirements that must be met before waste may be shipped to it.

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\(^4\) Maps accessed on the Deepwater Horizon Oil Spill Website, Feb 2012; http://usresponse.bp.com/go/doc/2911/962795/Location-of-staging-areas-and-landfill-disposal-facilities
In addition to the hazardous waste management facilities in Figure 4, there are many solid waste management facilities across the country that are permitted and overseen by state, local and tribal waste management officials. These facilities also have different designs, acceptance criteria, and permit conditions so utilization of a solid waste management facility for a SONS still calls for coordination, approval and perhaps emergency authorizations from state, local and tribal waste management officials.

**Evaluation of Waste Management Facilities & Assets for Utilization during an Oil SONS**

A response to a SONS is a highly visible event that can be expected to draw intense attention from the public and the media, as well as federal, state, local, and tribal waste management officials. As a result, emergency managers, planners and responders may want to evaluate potential waste management facilities (e.g., landfills, staging and decontamination areas, recyclers, waste water treatment plants, deep well injection sites) and equipment prior to an incident and document this within the pre-incident waste management plan. This will make it much easier and faster to include them in the incident specific waste management plan that will be approved by the Incident Command or Unified Command for use during a SONS response. This assessment should include the following considerations (Table 6):

**Table 6. Considerations for Evaluation of Potential Waste Management Facilities**

| Waste Compatibility | Insurance | Site Closure Planning |
| Facility Capacity   | Safety Record | Adjacent Properties |
The plan should identify the potential waste management facilities and other equipment that may be needed to manage the waste from a SONS, taking into account the considerations identified in Table 6. These facilities and equipment are owned by both the public and private sector and therefore those stakeholders may also be included as part of this planning process. Taking the time to identify these resources with the key stakeholders that own and operate them is one of the most important indicators as to whether an RCP or ACP is sufficient to support a SONS response. The other key component is actually testing the waste management plan during exercises that include the key waste management stakeholders. An example of a spreadsheet that emergency managers, planners and responders may want to develop and include as part of this plan is identified in Figure 5.

**Figure 5. Waste Management Facilities and Asset Preparedness Spreadsheet**

Recovery, Recyclers, Treatment, Disposal, and Other Facilities*

<table>
<thead>
<tr>
<th>Name of Facility</th>
<th>Type of Facility</th>
<th>Waste Description</th>
<th>Permits</th>
<th>Type of Liner?</th>
<th>Has leachate collection system?</th>
<th>Permitted/ Average Capacity per Day</th>
<th>Total Remaining Capacity</th>
<th>Compliance/ Permit/Groundwater Monitoring Issues History (last three years)</th>
<th>Environmental Justice/Community Concerns (3 mi study area)</th>
<th>Contacts</th>
<th>Source</th>
</tr>
</thead>
</table>

* Landfills (hazardous and non-hazardous), Oil Recovery and Recycling, Wastewater Treatment, Deep Well Injection, Medical Waste Incinerator, Water separation/recovery and solidification, Waste Transfer Stations, Municipal solid waste or hazardous waste incinerator

Staging, Decontamination Facilities and Other Assets**

<table>
<thead>
<tr>
<th>Name of Facility</th>
<th>Type of Facility or Asset</th>
<th>Material Staged/Activity/Waste Description</th>
<th>Environmental Justice/Community Concerns? (3 mi study area)</th>
<th>Contacts</th>
<th>Source</th>
</tr>
</thead>
</table>

** Waste/Equipment: staging and storage locations; Decontamination stations; Vacuum Trucks; Private Boats; Off-road vehicles; Oil Skimming devices; Oil Tankers/Barges; Oil/Water pumps, separators, tanks and trucks; Waste/Dump Trucks; Front end loaders; Roll off bins; Beach Cleaning Equipment; Plastic bags, carboys, booms, and spill control equipment; Sampling equipment/supplies, PPE

**Transportation Considerations**
During the waste management activities for a SONS response, operations will often occur on shore (beaches, ports, marshes, etc.), at sea or on inland waterways, and inland. A SONS response will involve transportation of a tremendous amount of different types of waste in many different kinds of vehicles,
vessels, and containers. Transportation of waste may be regulated by EPA and approved or authorized states, as well as the federal Department of Transportation and state departments of transportation, which may call for a great deal of pre-planning, logistics, and oversight. A SONS response may involve the use of dump trucks, front-end loaders, pump trucks, all-terrain vehicles, aircraft, boats, skimmers, helicopters, oil tankers, private boats, and other vehicles. As a result, emergency managers, planners and responders may want to develop a transportation plan to support waste management activities, including sources of these vehicles and advance agreements for their use. The transportation plan should include the following considerations, as appropriate:

- Type of vehicles to be utilized, categorized by waste type, media (i.e., soil or sediment, water, air), and areas in which they will be operating (e.g., states, tribal areas, and ACP Region);
- Waste haulers, permits, placarding, and documentation (e.g., EPA or state ID numbers, waste manifests, waste profiles) by vehicle, waste type, and area of operation;
- Insurance requirements for vehicles;
- Spill response plan for vehicles;
- Inter-and intra-state transportation routes; Inspections; and
- Decontamination of vehicles during the response and at the end of the response.

SECTION 4.0 WASTE/MATERIAL TRACKING & REPORTING

The national hazardous waste management framework is based upon a “cradle to grave” system designed to ensure the proper management of hazardous wastes and the protection of public health and the environment. In addition, the IC set up in response to a SONS will likely establish tracking and documentation of waste management activities to keep the IC informed of the progress of cleanup and waste management operations. As a result, a material tracking and reporting system can often be an important element of a waste management plan for a SONS.

As previously mentioned, a SONS involves the generation of large volumes of waste, often exceeding what waste management facilities handle in the course of an entire year or years of operation. In addition, this waste may be managed over a very large geographic area, involving many state and local governments, as well as a large number of waste management facilities. In order to assure the public, the media, and federal, state, local and tribal officials that the waste from a SONS is being managed appropriately, it may be important to demonstrate that a waste tracking and reporting system is in place. Accomplishing this goal calls for careful pre-incident planning to identify who is responsible for keeping the tracking system updated with accurate information, establishing data management and data quality control methods to ensure the accuracy of the reporting, and verifying that this system will provide the IC the information necessary to effectively oversee the waste management activities associated with a SONS. A material management tracking and reporting system may include, as feasible:

- Reporting of waste sampling and analysis results by location;
- Uniform tracking of waste and other materials, covering recovered product, and liquid and solid wastes;
- Tracking the quantity and volume handled at each waste management location, including where waste is temporarily (e.g., staging areas) or permanently (e.g., disposal site, recovery operation) located;
- Reporting on the status of waste management activities on a daily and cumulative basis for each type of material;
e. Cost recovery of waste management activities;
f. Online web posting showing how and where each category of waste is being managed, and the quantities accepted at each location; and
g. Archived posting of the Incident Command System (ICS) reports (e.g., ICS 209, “Oil Spill Incident Status Summary”).

This waste management data may be used to answer information requests from senior governmental officials, the media and the public. To maximize transparency, the Incident Command may want to provide waste management information to the public as it becomes available. A SONS may involve hundreds of thousands of waste management data points as a result of sampling and site visits conducted on waste management facilities where material was staged, stored, treated, and disposed of. Having a system in place to track and report out that information allows for a “cradle to grave” management system of waste from points of generation, to staging, storage, treatment, recycling, and disposal. It also allows those involved in the response, as well as waste management officials, the media, and the public to visualize the waste management process. A typical report produced from this tracking system is included in Table 7, which includes ICS Form 209, “Oil Spill Incident Status Summary.”

Table 7. Example Waste Management Tracking System For an Oil SONS

Additional information involving a waste tracking system for an Oil SONS can be accessed at: http://usresponse.bp.com/go/doc/2911/963567/Waste-and-recoverable-material-tracking.
Data management associated with waste management activities

Data management is an important element of the waste management planning process. The magnitude of this effort is easy to underestimate. A SONS response may involve hundreds of thousands of data points in tracking the entire waste management process. The Incident Command may want to update data regularly throughout the response and potentially also for extended periods beyond that, depending upon the timeframe of the long term recovery plan. This waste management data typically includes data on sampling and analysis; staging and storage; transportation tracking; waste manifests; waste acceptance; chain of custody; treatment and disposal; health and safety; site visits; waste type, designation and categorization; waste shipment logs; waste weight tickets; etc. The data management plan is often part of the QAPP referred to in Section C. A particular concern for management of waste management data is to define common units of measurement (e.g., tons, cubic yards) in which data will be reported to facilitate timely posting of data from different sources. The suggested content for a data management plan includes:

a. Description of the data generation, chain of custody and management process (i.e., from generation to final disposition);
b. Description of or reference to record-keeping procedures and document control, data storage, retrieval and security systems;
c. Identification of data handling equipment and procedures to process, compile, and analyze data;
d. Discussion of data handling procedures to detect and correct errors and loss during data processing;
e. Examples of any forms or checklists to be utilized;
f. Identification of any specific computer hardware and software performance requirements and how configuration acceptance will be determined;
g. Description of how data management requirements will be satisfied;
h. Identification of the names of individuals responsible for data validation, verification, and website posting;
i. Identification of any protocols for the timeliness of data posting; and
j. Identification of website formats and reporting formats, as well as frequency of reports, and archiving of data.

SECTION 5.0 OVERSIGHT ACTIVITIES & EXIT STRATEGY

A SONS response will likely involve large scale waste management activities that involve many contracts for waste management services. Waste management officials may find that part of their response role is oversight of waste management activities, contractors’ performance, and cost accounting associated with these efforts. This may involve oversight of waste management operations conducted either by a responsible party or by federal, state, and local emergency responders. This can be a large effort during a SONS due to the potential for a large number of waste management sites and facilities. As a result, it is recommended that these oversight efforts be planned ahead with a shared responsibility between federal, state, local, and tribal waste management resources. The waste management plan should also include a draw-down or exit strategy for oversight activities.

Waste management oversight activities
During a SONS, waste management officials may be involved in many different types of waste management oversight activities. This section is intended to facilitate planning for waste management oversight activities and approach. These activities may include:
a. Review and approval of the responsible party’s waste management plans;
b. Review and approval of the proposed waste management facilities;
c. Independent sampling and analysis of waste streams;
d. Site visits or inspections of waste management facilities and sites (e.g., staging, storage, and decontamination sites, landfills); and
e. Reporting and posting of waste sampling results on an oil spill website.

These waste management oversight activities generally call for development of plans in support of these activities, taking into account quality assurance and data management considerations, development of forms for the information gathered, and reporting formats to make the information collected publically available.

**Waste management oversight exit strategy/transition plan**

Since waste management activities associated with a SONS can go on for extended periods of time it is important for the FOSC to also plan an exit strategy for federal waste management oversight. Basically, this is a plan for transition from increased oversight associated with the spill back to the routine oversight conducted by state, local and tribal agencies. The waste management oversight exit strategy should address the oversight activities performed during spill response, who performs them, and the frequency, and then the proposed transition of these activities back to their normal routine prior to the SONS. Typically, this involves a transition of all activities back to the state in which these facilities are located. The transition plan should be attached to the overall waste management plan.

**SECTION 6.0 COMMUNITY OUTREACH & COMMUNICATIONS**

Community outreach and communications are a key part of effective waste management operations during a SONS and should be a part of the waste management plan. Community outreach issues related to waste management may include environmental justice concerns, informing the public about waste management operations, establishing processes that allow the public to communicate concerns about waste management operations, and addressing those concerns. While a responsible party may conduct some of this community outreach and communication, federal, state and local waste management officials can expect to be involved in these activities and should have plans in place ahead of time that address how they intend to meet these waste management related community outreach and communication issues.

**Waste management community outreach activities**

The EPA has decades of experience in community relations associated with oil and hazardous waste responses around the country. This experience has shown the importance of this function to the overall success of environmental cleanup actions. The same is true for a response to a SONS, with the main differences being that the number of people involved is sometimes much greater, and the demand to respond quickly to requests for information from officials, the media, and public is tremendous. Having processes and plans in place to handle this magnitude of effort will enhance the success of a response. A waste management community outreach plan may include the following objectives:
a. Identify and assess individual community information needs related to waste management operations and respond appropriately with relevant information and actions;
b. Seek the participation of local elected officials and other community leaders in community outreach efforts related to waste management operations;
c. Identify stakeholders that should be kept informed and engaged on an ongoing basis during waste management operations;
d. Develop accurate and timely waste management information to be disseminated to the community in a variety of methods and languages, including print and a publically accessible website;
e. Identify the appropriate tools and personnel to reach out to key stakeholders; and
f. Implement appropriate processes to respond in a timely manner to any potential concerns or complaints from the communities affected about waste management operations.

Waste management communications

A waste management communications plan should also be developed as part of the waste management plan. Past major oil spills have shown that federal, state, local, and tribal waste management representatives, as well as other agencies, spend thousands of hours in Emergency Operations Centers, Incident Command Posts, joint field offices, public meetings, and other venues responding to numerous requests for waste management related information. This includes requests from senior leadership throughout federal, state, local, and tribal governments, as well as from Incident Commanders, Emergency Operations Centers (EOCs), the public, and the media. Due to the magnitude of this effort, a strategy should be developed for communications as early as possible to ensure the proper coordination and flow of timely and accurate information. This involves close coordination and communication between the waste management resources in Emergency Operations Centers; the FOSC in the Incident Command, as well as the Incident Command Planning and Operations Section Chiefs; the Public Information Officer; and, state, local and tribal waste management officials. A waste management communications plan template should establish these lines of communications and expectations for information in the form of situation reports, media inquiries, and requests for information from Incident Commanders and senior leaders ahead of an event. Communication procedures and processes can be developed, documented, and demonstrated to work during training and exercises to ensure that they will work in a real incident. In addition, frequently asked questions and answers should be included in the waste management plan. Fact sheets that provide information on specific waste types, waste facilities, or waste management operations are another effective communications tool. It may be useful to have generally anticipated questions and information pre-scripted and coordinated ahead of time and attached to the waste management communications plan template. It should be translated into alternative languages used at the incident location to ensure inclusiveness.

SECTION 7.0 HEALTH & SAFETY CONSIDERATIONS

Health and safety of responders take on an increased importance during waste management operations that are part of a SONS response because of the amount of waste generated; the potential hazards from waste management activities and from the use of petroleum related compounds, dispersants, detergents, disinfectants, fumigants, and degreasers; the length of time of the response; the large geographic area; the large number of facilities and equipment; and the number of response personnel (federal, state, local, contractors) involved. In addition, response actions conducted under the NCP must comply with the provisions of the Occupational Health and Safety Administration’s (OSHA’s) Hazardous Waste Operations

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7 Fact Sheet on Oil Clean-up Waste Disposal, MS Department of Environmental Quality;
40 CFR 300.150.
and Emergency Response (HAZWOPER) Standard, under 29 C.F.R. §§ 1910.120 and 1926.65. These health and safety provisions apply even though some of the waste may not be considered hazardous waste under the RCRA or applicable state law.

OSHA’s HAZWOPER regulations require employers to have detailed Health and Safety Plans (HASP) to protect workers involved in cleanup operations in accordance with the NCP. As a result, a waste management HASP needs to be prepared that addresses the potential hazards from handling waste contaminated with oil or by products of materials utilized in the response to the SONS. The OSHA goals include ensuring that these workers receive appropriate briefings, training, and protective equipment for the potential hazards and exposures that exist during waste management operations. A HASP for waste management operations associated with a SONS response should consider the following items:

a. Situational overview of the SONS;
b. Key personnel involved and contact information;
c. Hazard assessment of all waste management operations and potential exposures;
d. Training requirements associated with waste management operations;
e. Personal protective equipment (PPE) requirements associated with each specific waste management operation;
f. Monitoring and management of temperature extremes;
g. Medical surveillance requirements;
h. Exposure monitoring and air sampling;
i. Site safety control measures;
j. Decontamination and waste management operations;
k. Emergency Response/Contingency Plan;
l. Confined space entry;
m. Spill containment;
n. Documentation requirements;
o. Material Safety Data Sheets for chemicals utilized during waste management operations; and
p. HASP coordination and approval.

Many resources exist to assist in the development of a HASP for a SONS including resources from the National Institutes of Environmental Health Sciences and OSHA. OSHA has developed many fact sheets and information applicable to an oil SONS which is discussed further in the waste management tools and resources section. Emergency managers, planners and responders should be aware of the differences between OSHA’s and EPA’s HAZWOPER Standard as it applies to uncompensated workers and volunteers and ensure those are reflected in the appropriate and applicable waste management HASPs.

RECOMMENDED WASTE MANAGEMENT PLAN ATTACHMENTS

The sections above constitute the main elements of a Waste Management Plan. In addition to these, most emergency response plans contain a “toolbox” of information in attachments to the main plan. These attachments often represent key information items that are important enough to have available before an event occurs versus having to develop it during an incident.
9 Oil Spill Cleanup Training Tool, NIEHS; http://tools.niehs.nih.gov/wetp/index.cfm?id=2495
10 Training Oil Spill Response Workers under OSHA’s HAZWOPER Standard, 2010; http://www.osha.gov/Publications/3172/3172.html
The following are useful attachments recommended for a SONS Waste Management Plan. These items have been useful in past major oil spill responses and, if prepared ahead of time, can greatly assist in the response and recovery efforts associated with a SONS.

- Waste Management Facility Assessment Checklist
- Waste Management Oversight Exit Strategy/Transition Plan
- Maps & Tables of Approved Oil Reclamation and Waste Management Contractors & Facilities (Contacts, Capabilities/Capacities, Waste Acceptance Criteria, Costs, Pre-approved contracts, etc.)
- Waste Staging/Storage/Decontamination Area Location Maps (Construction Materials, Equipment Needs, Operational & Spill Control Procedures, Site Closeout Checklist)
- Waste Management Documentation/Tracking Forms (Waste Profiles, Manifests, ICS Forms & Reporting Format)
- Waste Management Oversight Reporting & Cost Reimbursement Forms
- Individual State Requirements, Emergency Declaration/Orders, etc

WASTE MANAGEMENT PLANNING TOOLS AND RESOURCES

This section describes some valuable waste management tools and resources that are important to be aware of before a SONS. These tools and resources have been developed to assist emergency managers, planners and responders, as well as Incident Commanders and waste management officials, during the waste management decision making process involved in a SONS response. Many of these resources and tools have been developed or updated to address gaps in capabilities identified by stakeholders in the emergency response community and are frequently updated. A short description and additional information on each is presented:

**Waste management and disposal decisions:** U.S. EPA’s National Homeland Security Research Center developed the “Incident Waste Assessment System and Tonnage Estimator” (I-WASTE) to assist individuals responsible for making decisions associated with handling, transport, treatment, and disposal of wastes from different incidents. The I-WASTE is location-specific to help identify specific facilities and contacts for disposal. The I-WASTE provides quick reference to technical information, regulations, and other information to provide decision makers with assistance in guiding waste management decisions that are important for the protection of public health, first responders, and the environment. Access to the I-WASTE can be requested through the sign on page at: [http://www2.ergweb.com/bdrtool/login.asp](http://www2.ergweb.com/bdrtool/login.asp).

**Waste management information:** U.S. EPA’s Office of Resource Conservation and Recovery maintains the website for “Waste Management from Homeland Security Incidents,” found at [http://epa.gov/waste/homeland/](http://epa.gov/waste/homeland/). Homeland security incidents include incidents requiring a national response (e.g., SONS); acts of terrorism perpetrated with, for example, radiological dispersal devices or chemical or biological warfare agents; large-scale natural disasters, such as Hurricane Katrina; and animal disease outbreaks. This site provides waste management information that can be used by emergency managers, planners, and responders in planning before a homeland security incident occurs, and in decision-making during and after an incident occurs.

**Tracking:** DrumTrak is a software tool designed to assist in the process of drum and container management. It captures physical drum data (drum type, closure, layers, location, markings, etc.). In addition, DrumTrak processes analytical results to determine hazardous characteristics and assists users in creating bulk groups for disposal. [http://www.ertsupport.org/DrumTrak_Home.htm](http://www.ertsupport.org/DrumTrak_Home.htm)
**Transportation options:** U.S. DOT hosts a Hazardous Materials Information Center (HMIC) which can be reached at 1-800-467-4922. The HMIC can provide help on use of the DOT’s Hazardous Materials

**Hazardous waste treatment, storage, and disposal facilities regulations:** This web-based document serves as a user-friendly reference in locating and understanding the current RCRA hazardous waste treatment, storage, and disposal facility (TSDF) regulations. The information is organized by the type of hazardous waste management activity, which encompasses hazardous waste treatment, storage, and disposal, and includes information on containers, incinerators, landfills, land treatment, surface impoundments, tank systems, and waste piles. This reference can be an important resource in developing a waste management plan for hazardous waste streams. A copy of this document can be found at: [http://www.epa.gov/epawaste/hazard/tsd/permit/tsd-regts/tsdf-ref-doc.pdf](http://www.epa.gov/epawaste/hazard/tsd/permit/tsd-regts/tsdf-ref-doc.pdf)

**Public health emergencies:** The Centers for Disease Control and Prevention has a website on Emergency Preparedness and Response. This website is a source of information and resources for preparing for and responding to public health emergencies. This site keeps the public informed about public health emergencies and provides vital information on those emergencies. This site is located at: [http://www.bt.cdc.gov/](http://www.bt.cdc.gov/). The Agency for Toxic Substances and Disease Registry (ATSDR), is another federal public health agency of the U.S. Department of Health and Human Services. ATSDR serves the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and diseases related to toxic substances. There website also has valuable information on emergency response and is located at: [http://www.atsdr.cdc.gov/](http://www.atsdr.cdc.gov/).

**Emergency preparedness and response:** The OSHA Emergency Preparedness and Response website highlights OSHA standards, preambles to final rules, directives (instructions for compliance officers), official letters of interpretation of the standards, other documents, and other federal standards related to emergency preparedness and response. This site is located at: [http://www.osha.gov/SLTC/emergencypreparedness/](http://www.osha.gov/SLTC/emergencypreparedness/)

**Oil spill response:** The Oil Spill Solutions site provides a large quantity of useful information on the subject of oil spill responses. The developer of the website has responded to some of the world’s largest oil spills for over 30 years, covering spills from oil tankers, offshore platforms, and pipelines onshore and offshore. The site is located at: [http://oilspillsolutions.org/](http://oilspillsolutions.org/)

**Oil spill response:** The International Petroleum Industry Environmental Conservation Association (IPIECA) is the global oil and gas industry association for environmental and social issues. IPIECA is the only global association involving both the upstream and downstream oil and gas industry on environmental and social issues. The IPIECA has many publications dealing with waste management, contingency planning, as well as health and safety associated with oil spill response. The site is located at: [http://www.ipieca.org/](http://www.ipieca.org/).

**Technical advice:** The International Tanker Owners Pollution Federation (ITOPF) provides technical advice and information on all aspects of pollution response and the effects of spills on the marine environment. Their technical services include on-site clean-up advice, pollution damage assessment, assistance in spill response planning, and the provision of training and information. ITOPF has many technical publications including information on spills involving oil and chemicals. The site is located at: [http://www.itopf.com/](http://www.itopf.com/).
SUMMARY

Experience in responding to major oil spills (i.e., Deepwater Horizon Oil Spill) as well as major natural and man-made incidents (e.g., anthrax letters, Hurricane Katrina, Japanese tsunami and nuclear power plant incident) over the past decade has continued to show the importance of pre-event waste management planning as a measure of being prepared to respond to major incidents like a SONS. These experiences have shown that many waste management planning elements are similar regardless of the type of incident and can be planned for ahead of time, and then tailored to the site-specific incident. The common elements that drive the need for planning include: larger quantities of waste, wider area of impact, the need for community engagement, and the reality that large scale incidents quickly draw greater public scrutiny as well as national and international media attention.

Waste management planning is a dynamic process and involves a great deal of complexity and integration of people, processes and systems. This framework for a model waste management plan for a SONS is intended to build upon the lessons learned from major incidents in the past and to identify those planning elements needed to improve waste management preparedness for major incidents in the future. Even though SONS may not occur frequently, the elements of this planning process can assist a community in being prepared for other major natural and man-made incidents that involve the same waste management planning elements. Effective pre-event waste management planning can lead to a more timely and cost effective response to and recovery from major incidents such as SONS.

EPA hopes to continue to improve upon waste management planning for incidents like a SONS. As a result, we are interested in your feedback so that we can continue to improve upon this framework as well as develop other waste management tools and resources. To contact us, the U.S. EPA’s Office of Resource Conservation and Recovery maintains the website for “Waste Management from Homeland Security Incidents,” found at http://epa.gov/waste/homeland/. Comments can be submitted to us directly through that website or alternatively to Mr. Mario Ierardi, (703) 308-8894, at EPA’s Office of Resource Conservation and Recovery.

1420 National Response Policy

The perception of danger and threat facing this country and the consequences they could have on the American way of life has changed significantly since September 11, 2001. Threats cross a broad spectrum of contingencies from acts of terrorism to natural disasters to other man-made hazards (accidental or intentional). Because all carry the potential for severe consequences, these threats must be addressed with a unified national effort. A new paradigm for incident management is required.

Incident management cannot be event driven. The new paradigm must be approached through increased awareness, preventive measures, and robust preparedness. Preventing an incident from ever occurring reaps far more dividends
than simply reducing the costs of post-incident response and recovery. Consequently, in this new Plan, awareness, prevention, and preparedness efforts will be given similar emphasis to that traditionally afforded to the response and recovery domains. To make the response and recovery aspects of our nation’s readiness system as efficient and effective as possible, a cooperative national effort is essential, one with a unified approach to incident management and with the ultimate goal of a significant reduction in our nation’s vulnerability over time. Successful implementation of this new paradigm is critically dependent on information-sharing, consistent and timely communication between all institutions that are party to the National Response Framework, and a common planning framework that captures valuable best practices across the spectrum of contingencies.

While the primary responsibility for initial incident response remains at the local level, using locally available assets, special capabilities for prevention or response may also require Federal and private-sector resources in the case of the most dangerous and complex threats. The fundamental requirements of this new Plan are to develop consistent approaches to domestic preparedness across the life cycle of an incident—from awareness, through prevention and preparedness, and into response and recovery—and to improve the effective use of resources that are available at each step of the cycle. Consistency must reach all levels of domestic incident management, from the highest echelons of the Federal government to the individual, field-level responders.

The Department of Homeland Security (DHS) has been charged with the responsibility of unifying the nation’s effort to deal with domestic contingencies. To facilitate this mandate, the President issued Homeland Security Presidential Directive 5 (HSPD-5) on February 28, 2003, calling for the creation of a National Response Framework (NRF) to “integrate Federal Government domestic prevention, preparedness, response, and recovery plans into one all-discipline, all-hazards plan” under the authority of the Secretary of Homeland Security. Under the NRF, a National Incident Management System (NIMS) will be developed to provide a consistent nationwide framework to standardize incident management practices and procedures to ensure that Federal, State, and local governments can work effectively and efficiently together to prepare for, respond to, and recover from domestic incidents, regardless of cause, size, or complexity.

1421 Purpose of the National Response Framework

The purpose of the NRF is to enhance the ability of the United States to prepare for and manage domestic incidents by establishing a single, comprehensive national strategy. To accomplish this goal, the NRF integrates all incident management activities across a continuum from pre-incident awareness, prevention, and preparedness to incident response and post-incident recovery. It establishes a single base plan to address all hazards and contingencies, covering all disciplines. The Plan also ensures coordination at all levels of government—Federal, State, and local—and cooperation with the private and public sectors in order to bring the full range of the nation’s capabilities to bear in protecting the homeland. Finally, this Plan ensures that the Federal government works effectively and efficiently with State and local agencies to prevent, prepare for, respond to, and recover from domestic incidents by establishing a common NIMS to be used at all levels.

The initial version of the NRF sets forth the conceptual structure, key tenets, roles and responsibilities, and main principles of the NRF and the NIMS. The final version of the NRF, in conjunction with the NIMS, will:

1. Integrate Federal Government domestic incident awareness, prevention, preparedness, response, and recovery plans into one all-discipline, all-hazards plan;

2. Describe the structure and mechanisms for providing national-level policy guidance and operational direction for Federal support to State and local incident management and for exercising direct Federal authorities and responsibilities, as appropriate;

3. Include protocols for operating under different threats or threat levels;
4. Incorporate existing Federal emergency and incident management plans (with appropriate modifications and revisions) either as integrated component of the NRF or as supporting operational plans;

5. Incorporate additional operational plans or annexes, as appropriate, including public affairs and intergovernmental communications;

6. Include a consistent approach to reporting incidents, providing assessments, and making recommendations to the President, the Secretary of Homeland Security, and the Homeland Security Council;

7. Include rigorous requirements for continuous improvements arising from tests, exercises, experience with incidents, and new information and technologies;

8. Serve as the foundation for further development of detailed agency, regional, State, and local operational plans and procedures;

9. Include guidelines for notification, coordination, and leadership and support of activities necessary for awareness, prevention, preparedness, response, and recovery related to domestic incidents, as well as for the dissemination of emergency public information;

10. Acknowledge the unique nature of each incident, the capabilities of local jurisdictions, and the actions necessary to prevent or to mitigate a specific threat or incident;

11. Recognize the responsibilities of Federal departments and agencies to carry out their responsibilities under the law; and

12. Illustrate ways in which Federal, State, and local governments, with the support of the private sector and the American public, can most effectively unify and synchronize their efforts to prevent or respond to domestic incidents.

The NRF applies to:

1. All domestic incidents, across the spectrum of incident management activities, including pre-incident awareness, prevention, preparedness, incident response, and post-incident recovery. For the purpose of this Plan, the term “domestic incident” means any of the following when occurring within the “United States”:
   a. An “emergency” or “major disaster”;²
   ² As defined in sections 102 (1) and (2) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5122).
   b. A threat or act of “terrorism”³ that the Secretary, in consultation with the Attorney General, determines is of sufficient magnitude to warrant implementation of this Plan; or
   c. Any other occasion or instance in which one or more of the following conditions or thresholds applies:
      (1) A Federal department or agency acting under its own authority has requested the assistance of the Secretary;
      (2) The resources of State and local authorities are overwhelmed and Federal assistance has been requested by the appropriate State and local authorities;
      (3) More than one Federal department or agency has become substantially involved in responding to the incident; or
      (4) The Secretary has been directed to assume responsibility for managing the incident by the President.

2. The following organizations:
a. All Federal departments and agencies;
b. State and local authorities when requesting Federal assistance;
c. State and local authorities accepting Federal preparedness assistance through grants, contracts, or other activities beginning in Fiscal Year 2005; and
d. Private and nongovernmental entities partnering with the Federal Government in relation to domestic incident management activities.

1422 Design Imperatives from HSPD-5

The NRF reflects certain key tenets as set forth in HSPD-5, namely, that the NRF be:

1. A single plan. The NRF integrates existing Federal domestic awareness, prevention, preparedness, response, and recovery plans into one base plan, addressing functional areas common to most contingencies, with annexes to describe unique procedures required under special circumstances.

2. An “all hazards/all disciplines” plan. Current emergency plans are designed to deal with only certain types of contingencies. In keeping with the requirements of HSPD-5, the NRF is a single plan that is flexible enough to accommodate “all hazards,” covering all of the disciplines required for conducting activities throughout the “life cycle” of an incident. Under the NRF, “hazards” refers to the full range of possible contingencies, including:
   a. Natural disasters, such as floods, earthquakes, hurricanes, tornadoes, droughts, and epidemics;
   b. Accidents, such as chemical spills, industrial accidents, radiological or nuclear incidents, explosions, and utility outages;
   c. Civil or political incidents, including mass migrations, the domestic effects of war, nation-state attacks, and unrest or disorder resulting from riots, public demonstrations, and strikes.
   d. Terrorist or criminal incidents, including chemical, biological, radiological, nuclear, explosive, or cyber threats or attacks; and
   e. Significant events and designated special events requiring security, such as inaugurals, State of the Union addresses, the Olympics, and international summit conferences.

These contingencies are not mutually exclusive and may occur individually, simultaneously, or in combination.

3. A plan that emphasizes unity of effort among all levels of government. The NRF is a national plan that emphasizes unity of effort among all levels of government. Under this Plan, Federal, State, and local governments, along with private organizations and the American public, work as partners to manage domestic contingencies efficiently and effectively.

4. A plan that integrates crisis and consequence management. In keeping with the Presidential Directive, the NRF will “treat crisis management and consequence management as a single, integrated function, rather than as two separate functions.”

5. A plan that places the same emphasis on awareness, prevention, and preparedness as traditionally has been placed on response and recovery. Traditionally, response plans have been exactly what their name implies—plans for responding to and recovering from an incident or contingency. In the aftermath of September 11, 2001, however, preventing terrorism and reducing our nation’s vulnerabilities through preparedness have become top priorities. The NRF sets forth a new concept of a “response” plan by covering five domains: awareness, prevention, preparedness, response and recovery.

1423 Guiding Principles

In addition to the imperatives set forth in HSPD-5, the following fundamental principles guide the development of the NRF:
1. **Fundamental Role of State and Local Authorities.** The NRF recognizes that domestic contingencies generally begin and are initially responded to as local events. The vast majority of events are dealt with at the State or local level. Federal involvement may not be necessary except for reporting.

2. **Importance of Effective Communication.** Information sharing between agencies is critical to the success of a national plan. The NRF requires effective information sharing among all affected parties. Timely reporting is essential for informed decision making at all levels. Specific reporting requirements will be detailed in the NIMS.

3. **Primacy of Preserving Human Life.** Preserving human life constitutes the first priority under the NRF. Preserving human life will always take precedence over other response and recovery requirements.

4. **Seamless Transitions.** The NRF includes mechanisms to provide seamless transitions that must occur on several levels. To be effective, operations must transition smoothly from simple to complex situations and from routine, day-to-day operations to catastrophic incidents. In addition, under appropriate circumstances, DHS will have mechanisms for seamless integration of DHS responsibilities with the Department of Justice (DOJ) and the Federal Bureau of Investigation (FBI), the Department of Defense (DOD), and the Department of State. The mechanisms and circumstances will be addressed in the NRF annexes.

5. **Standardization of Systems, Procedures, and Communications.** Effective incident-management operations require interoperability and compatibility in systems, procedures, and communications. Through the NIMS, this Plan provides a core set of concepts, principles, terminology, and technologies. Agencies and authorities are expected to conform to the standards of the NRF and the NIMS.

6. **Integration of Best Practices.** To capitalize on what has been deemed effective in the past, the NRF incorporates many best practices from previous plans and agencies, as well as exercises and actual experience. In addition, the NRF and the NIMS contain required processes to ensure continuous improvement and vulnerability reduction through lessons learned and other feedback. The NIMS will also include processes for taking advantage of research and development and technological advances.

7. **Need for an Agile Incident Management Capability.** To support this requirement, the NRF must be:
   a. **Scalable.** The NRF can be utilized to cover the spectrum from day-to-day incident management activities to the most complex and severe contingencies, including catastrophic events.
   b. **Modular.** The NRF is designed so that some or all of its components can be tailored to fit the specific requirements of a situation.
   c. **Flexible.** The NRF is able to address new threats and risks. It also addresses the need to implement changes to operational procedures based on lessons learned and other feedback mechanisms.

8. **Ability to Accommodate State and Local Systems.** When implemented, the NRF and the NIMS should be flexible enough to accommodate State and local incident management systems.

### 1424 Five Incident Management Domains

The *life cycle* of activities is best described as containing five *domains* within which domestic incident management activities occur: awareness, prevention, preparedness, response, and recovery. A key element of the domain life cycle concept is recognition of the need for continuous improvement, through feedback mechanisms, lessons learned, evaluations, research and development, the adoption of best practices, and other dynamic processes.
1424.1 Awareness

Awareness refers to the continual process of collecting, analyzing, and disseminating intelligence, information, and knowledge to allow organizations and individuals to anticipate requirements and to react effectively. It involves an interactive process of sharing and evaluating information from multiple sources to include the fusion of domestic and international intelligence and operational reports into a coherent picture. It includes communications and reporting activities and activities to forecast or predict incidents and to detect and monitor threats and hazards. It also covers public education. Awareness activity is the basis for advice, alert and warning, intelligence and information-sharing, technical assistance, consultation, notification, and informed decision-making at all intergovernmental levels, as well as with the private sector and the public.

1424.2 Prevention

Prevention refers to actions to avoid an incident, to intervene and to stop an incident from occurring, or to mitigate an incident’s effects. It involves actions to protect lives and property and to defend against attacks. It involves applying intelligence and other information to a range of activities that may include such countermeasures as deterrence operations; heightened inspections; improved surveillance and security operations; investigations; public health surveillance and testing processes; immunizations, isolation, or quarantine; and law enforcement operations aimed at deterring, preempting, interdicting, or disrupting illegal activity.

1424.3 Preparedness

Preparedness refers to the activities necessary to build and sustain performance across all of the other domains. Preparedness is part of the life cycle that includes a range of deliberate, time-sensitive tasks that need to occur in the transition from prevention to response. Preparedness can also be characterized as a continuous process or cycle. The mission of preparedness is to develop meaningful answers to the question, “are we prepared to be aware of, to prevent, to respond to, and to recover from terrorist attacks, major disasters, and other emergencies?” Preparedness involves efforts at all levels of government and within the private sector to identify risks or threats, to determine vulnerabilities, to inventory resources available to address those vulnerabilities, and to identify requirements or shortfalls, resulting in a preparedness plan to remedy shortfalls over time. Preparedness plans include program initiatives for planning, training, equipping, exercising, and evaluating capability to ensure sustainable performance in order to prevent, prepare for and respond to incidents.

1424.4 Response

Response refers to the activities necessary to address the immediate and short-term effects of an incident; focusing primarily on the actions necessary to save lives, to protect property, and to meet basic human needs. Life-saving and life-protecting activities take precedence over other critical actions. Response activities include assessing preliminary damage and unmet needs; activating and deploying response resources into an affected area; providing access to and mobility within the area of operations; developing, coordinating, and executing an integrated incident management plan (which includes the activities of all response agencies); allocating existing resources in support of the plan and obtaining additional resources as required; and deactivation and standing down. It includes activities for providing basic life-support functions and services, triaging and treating personal injuries, minimizing damage to the environment and to property, both public and private, and planning for the transition from response to recovery within each functional area. Response operations also include law enforcement, investigative, and security activities conducted to address the criminal aspects of the incident.
1424.5 Recovery

Recovery refers to those actions necessary to restore the community and bring the perpetrators of an intentional incident to justice. It entails the development, coordination, and execution of service- and site-restoration plans; the reconstitution of government operations and services; individual, private-sector, and public-assistance programs to provide housing and to promote restoration; long-term care and treatment of affected persons; additional measures for social, political, environmental, and economic restoration; evaluation of the incident to identify lessons learned; post-incident reporting; and development of initiatives to mitigate the effects of future incidents. It may also include prosecution, incarceration, or other forms of punishment against perpetrators of intentional acts, as well as the seizure and forfeiture of their property.

1424.6 Integration of Domains

Domain activities are neither linear nor mutually exclusive. There is no temporal or functional dividing line between or among domains. For example, there are broad and sustained awareness, prevention, and preparedness activities. There are also specific awareness, prevention, and preparation activities for particular incidents that can be undertaken while response or recovery activities are under way. Recovery operations may start simultaneously with response operations. Lessons learned in the conduct of activities in any of the domains will likely inform the enhancement or initiation of activities in several domains.

1425 Primary Federal Agency (PFA)

The Secretary of Homeland Security will designate DHS components and other departments and agencies with extensive experience, capabilities, and authorities in specific areas to serve as PFAs in managing certain functional areas related to a contingency, and to coordinate the activities of other agencies in accomplishing a given function.

The Primary Federal Agencies:

a. Develop strategies or plans for accomplishing functions assigned by the Secretary. Plans include activities necessary to anticipate, prevent, prepare for, respond to, and recover from incidents;
b. Execute plans as directed by the Secretary;
c. Conduct situational assessments in an assigned functional area;
d. Coordinate with SAs to identify the resources necessary to address Federal, State, or local operational requirements;
e. Coordinate interagency efforts to develop and execute Functional Area Plans (see section VIII., B., 3. below) and, in specific circumstances, to deliver support in designated functional areas;
f. Provide technical advice and assistance to DHS;
g. Conduct periodic readiness assessments within an assigned functional area and report the results of those assessments to DHS;
h. Plan and conduct training exercises within assigned functional areas aimed at continuous improvement of prevention, response, and recovery capabilities;
i. Identify new equipment or capabilities required to prevent or respond to new or emerging threats and hazards, or to improve the ability to address existing threats; and
j. Nominate new technologies that have the potential to improve performance within or across functional areas to DHS for review and evaluation.
1425.1 Supporting Agencies (SA)

The Secretary of Homeland Security shall designate DHS components and other departments and agencies as SAs to provide capabilities and resources that can be used to prevent, prepare for, respond to, or recover from domestic contingencies. SAs:

a. Participate in the development of Functional Area Plans;
b. Assist in conducting situational assessments;
c. Furnish personnel, equipment, or other resource support as requested by DHS or a PFA;
d. Provide input to periodic readiness assessments conducted by the PFA for assigned functional areas;
e. Participate in training and exercises aimed at continuous improvement of prevention, response, and recovery capabilities;
f. Identify new equipment or capabilities required to prevent or respond to new or emerging threats and hazards, or to improve the ability to address existing threats; and
g. Nominate new technologies that have the potential to improve performance within or across functional areas, to DHS for review and evaluation.

1426 National Response Framework Concept of Operations

Domestic incident management operations are traditionally viewed as having Federal, State, and local components. However, in keeping with the intent of HSPD-5, the NRF describes domestic incident management operations in “national” terms. National operations provide the mechanisms to coordinate Homeland Security activities at all levels of government; make the policy decisions necessary to support domestic incident management operations, to allocate resources to multi-regional contingencies, and to communicate effectively with the public concerning actual or impending incidents. This national focus is intended to ensure that Federal, State, and local authorities have the capability to work together efficiently and effectively, through the use of the NRF and the NIMS, and that the capabilities of the private and non-governmental sectors are integrated in support of national requirements. Thus, national operations are the “end state” to be achieved by the Secretary of Homeland Security through the integration of a broad spectrum of related activities into a seamless and consistent approach to domestic incident management.

The critical component of the NRF is the role the Secretary of Homeland Security plays in integrating the operations of various authorities and agencies into a single system for domestic incident management. The Secretary’s unique roles and responsibilities are based on the authorities and guidance contained in such documents as the National Strategy for Homeland Security; the Homeland Security Act of 2002; and Homeland Security Presidential Directive-5. These roles fall into four main categories – direction and planning, communication and information, training and continuous improvement, and incident management. They span all of the domains and categories of incidents and serve to synchronize activities in each of these areas into a truly national effort. (For more detail, see section V., B., 1., above.)

Almost all domestic contingencies begin at the local level. As a situation escalates, local resources and capabilities may be exhausted or exceeded and additional support may be required. This support can be obtained either through local mutual-aid agreements, assistance provided by the local offices of State or Federal agencies, and ultimately by a request for assistance from the State. Should a contingency escalate further, State mutual-aid compacts can be exercised and the State may request that the Federal government become involved in support of operations. Although local, State, and Federal authorities play different roles in managing domestic incidents, together their collective involvement constitutes the “national” system.

The vast majority of the domestic incidents that will occur may not require Federal assistance. Nevertheless, the Secretary of Homeland Security must be able to anticipate requirements and keep the President informed on certain activities nationwide—even those that take place at the local level. In addition, the Secretary’s ability to identify trends and to communicate alerts and warnings is dependent upon having an accurate picture of activities that are occurring across the nation.
Awareness of a domestic incident is not a mandate for the Secretary to coordinate operations in every event. In most cases, a local or State government or a Federal department or agency will exercise its own authorities, and perform its core business (maintaining public order and safety) or statutory functions in response to domestic incidents. In a similar vein, the Secretary’s authority does not impede individual Federal departments and agencies from carrying out their responsibilities under law. This permits the Secretary to exercise authority to direct Federal operations or the application of Federal resources, by exception, when it is in the national interest.

Preparedness can be part of the life cycle of a specific incident and can include the range of deliberate, time-sensitive tasks that may need to occur in the transition from prevention to response. The requirements for preparedness activities for a specific incident will be set forth in the NIMS. Preparedness can also be characterized as a continuous process or cycle designed to ensure sustainable performance to prevent, prepare for, and respond to incidents.

1427 National Incident Management System (NIMS)

The NIMS is a consistent nationwide framework within which Federal, State, and local governments and the private sector can work effectively and efficiently, together, within a common system to prepare for, respond to, and recover from domestic incidents, regardless of their cause, size, or complexity. To provide for interoperability and compatibility among Federal, State, and local capabilities, the NIMS will include a core set of concepts, principles, terminology, and technologies covering the incident command system; multi-agency coordination systems; unified command; training; identification and management of resources (including systems for classifying types of resources); qualifications and certification; and the collection, tracking, and reporting of incident information and incident resources.

NIMS establishes specific core principles of emergency management to enhance efficiency. These principles are integrated into day-to-day operations to ensure their effectiveness across the life cycle of an incident, from awareness, prevention, and preparedness through response and recovery.

This section outlines the basic NIMS framework and its integration into the NRF. NIMS is built on the following core principles, outlined in the following sections (1427.1 - 1427.13).

http://www.fema.gov/emergency/nims/NIMSTrainingCourses.shtm#item1

1427.1 Common Terminology

The NIMS utilizes a common set of terms and associated meanings, to be used across the incident management community and in all plans supporting the NRF to ensure effective communication between participants.

1427.2 Incident Command System (ICS)

The ICS is an on-scene management structure suitable for managing any incident. A scalable structure, it encompasses all phases and complexity levels of incident management. ICS consists of five primary management functions (command, operations, planning, logistics, and finance) and a Unified Command structure.

1427.3 Unified Command

Unified Command brings together all major organizations (Federal, State, local, and private) with direct responsibility or authority for an incident into a single command structure. This enhances preparedness, response
and recovery activities while allowing each organization to fulfill its jurisdictional authorities, responsibilities, and accountability.

1427.4 Multi-Agency Coordination System (MACS)
MACS is a combination of committees, facilities, equipment, personnel, procedures, and communications protocols integrated into a common interagency system with responsibility for coordinating and supporting incident operations. MACS establishes policies and priorities; allocates and tracks resources; and coordinates interagency and intergovernmental decisions. The MACS functions principally through Emergency Operations Centers and Emergency Prevention and Preparedness Councils.

1427.5 Emergency Operations Center (EOC)
An EOC is a physical location for coordinating response and recovery actions and resources in support of incidents. A permanent, national-level EOC and regional EOCs are envisioned to support NRF requirements.

1427.6 Emergency Prevention and Preparedness Councils (EPPC)
EPPCs are multi-agency, multi-jurisdictional bodies established for pre-event coordination. EPPCs are the principal mechanism through which to maintain and improve the NIMS.

1427.7 Resource Management
Efficient incident management requires a system to identify available resources at all intergovernmental levels in order to enable timely and unimpeded access to resources needed to prepare for, respond to, or recover from an incident. Resource management under the NIMS includes mutual-aid agreements, the use of special Federal teams, and resource mobilization protocols.

1427.8 Training and Exercise System
In the interest of proper preparedness, NIMS will establish the means to ensure that necessary personnel have the skills to implement emergency plans and perform technical tasks. This system includes a qualification and certification system, a national standard for NIMS positions, and a continuous national incident management capability assurance program.

http://training.fema.gov/IS/NIMS.asp

http://osha.gov/dte/index.html
1427.9 Supporting Technology

NIMS will provide a support architecture to ensure identification of state-of-the-art technologies and systems for application to emergency response activities.

1427.10 Incident Communications and Information Management

NIMS will provide procedures for the effective, coordinated, and controlled management of incident-related information between response centers and other interested parties. The flow of intelligence and information between local, regional, and national levels is essential for maintaining domain awareness and ensuring proper prevention and preparedness measures are implemented. Post-incident information management is equally important in executing efficient, effective response.

1427.11 Public Engagement

NIMS will provide for the mechanisms to ensure information related to domestic incidents is gathered and provided to the public, the private sector, State and local authorities, Federal departments and agencies, and the President.

1427.12 NIMS Framework within the NRF Structure

Most domestic incidents are handled at the local Unified Command level with local entities (Federal, State, and local) participating as appropriate to the incident. In pre-event preparedness and prevention scenarios, the Local Emergency Prevention and Preparedness Councils (LEPPC) play a vital role in coordinating with the local emergency response, prevention, and preparedness communities. The LEPPC(s) are coordinating entities composed of participating local entities.

In the event of an incident exceeding the local capabilities for preparedness, response, and/or recovery, the regional and national incident management organizations will provide support. Working within the State and/or Regional Emergency Operations Centers (SEOC/REOC) and within the Joint Operating Center (JOC) in the case of FBI participation, the multi-agency coordination requirements occur within these frameworks, providing information and resources for the incident commander at the local level.

Pre-event preparedness and prevention activity occurs at the State and regional EOC(s) and within the Regional Emergency Prevention and Preparedness Councils (REPPC). The National Emergency Prevention and Preparedness Council (NEPPC) coordinate the NIMS, providing policy and guidance to the regional and local EPPCs. The NEPPC is chaired by DHS and members are drawn from each of the PFAs or Support Agencies.

1427.13 Relationship between NIMS and NIIMS

NIMS is not the National Interagency Incident Management System (NIIMS), but recognizes the significant benefits of NIIMS and incorporates many of the NIIMS principles. Given the differences, however, it is incorrect to assume that the NIMS is a mirror of NIIMS.
1428 The Oil Pollution Act of 1990

Section 4201 of OPA 90 amended Subsection (c) of Section 311 of the FWPCA, to require the FOSC to:
“In accordance with the National Contingency Plan and any appropriate Area Contingency Plan, ensure effective and immediate removal of a discharge, and mitigation or prevention of a substantial threat of a discharge, of oil or a hazardous substance into or on the navigable waters; on the adjoining shorelines to the navigable waters; into or on the waters of the exclusive economic zone; or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States. In carrying out these functions, the FOSC may: remove or arrange for the removal of a discharge, and mitigate or prevent a substantial threat of a discharge, at any time; direct or monitor all Federal, State, and private actions to remove a discharge; and recommend to the Commandant that a vessel discharging or threatening to discharge, be removed and, if necessary, destroyed. If the discharge or substantial threat of discharge of oil or hazardous substance is of such size or character as to be a substantial threat to the public health or welfare of the United States, (including but not limited to fish, shellfish, wildlife, other natural resources, and the public and private beaches and shorelines of the United States), the FOSC shall direct all federal, state, and private actions to remove the discharge or to mitigate or prevent the threat of the discharge.”

If the discharge or substantial threat of discharge of oil or hazardous substance is of such size or character, as to be a substantial threat to the public health or welfare of the United States (including but not limited to fish, shellfish, wildlife, other natural resources, and the public and private beaches and shorelines of the United States), the OSC shall direct all federal, state, and private actions to remove the discharge or to mitigate or prevent the threat of the discharge.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC 9601 et seq., is a broader policy that includes all three strata of land, air, and water and an increased number of recognized hazardous substances. Congress enacted CERCLA in 1980 to prevent and mitigate the release of hazardous substances into the environment. For additional info on environmental laws: [http://www.epa.gov/epahome/laws.htm](http://www.epa.gov/epahome/laws.htm)

1429 Operational Response Actions

The framework for all pollution response and investigation action is the NCP. Within the NCP, oil and hazardous substance incidents are described in terms of size and phase. Federal response policy is keyed to these criteria, with expected action defined for each phase.

1429.1 Incident Size Characterization

1. Within the AOR for this plan an oil spill is defined as “minor” if it is less than 10,000 gallons. A “medium” spill is 10,000 to 100,000 gallons. A “major” spill is over 100,000 gallons. Incident definitions are based on size only and are not necessarily associated with the relative significance or potential impact of each discharge.

2. Hazardous substance releases are also labeled “minor”, “medium” or “major.” The criteria for classification are less clearly defined here. A release is defined as “minor” if it poses a minimal threat to public health or welfare or to the environment. A “major” release poses a substantial threat, or results in significant public concern. A “medium” release is defined as one not meeting the criteria for classification as a “minor” or “major” release.
1429.2 Incident Phases

The progression of response actions to an oil discharge and a hazardous substance release is divided into phases. Expected OSC actions are specified for each phase. Actions differ between oil and hazardous substance incidents. A listing of the actions taken under each phase is as follows: Oil response phases are labeled by number; hazardous substance response phases are labeled by title. Only the first three hazardous substance phases are covered in this section. The remaining phases, with the exception of “Documentation and Cost Recovery,” are remedial response actions in which the Coast Guard is not involved. Instead, FOSC responsibilities will be transferred to the Environmental Protection Agency for the long-term remediation oversight. The phases of both hazardous substance and oil discharges are described by 40 CFR 300.

1. Oil Discharge Response Phases:
   A. Phase I, Discovery and Notification.
   B. Phase II, Preliminary Assessment and Initiation of Action.
   C. Phase III, Containment, Countermeasures, Cleanup, and Disposal.
   D. Phase IV, Documentation and Cost Recovery.

2. Hazardous Substance Response Phases:
   A. Discovery and Notification.
   B. Preliminary Assessment for Removal Actions.
   C. Removal.
   D. Site Evaluation and National Priorities List Determination.
   E. Remedial Action.
   F. Documentation and Cost Recovery.

1429.3 Oil Discharge Response Actions

1. Discovery and Notification
Initial reports of pollution incidents are required to be made to the National Response Center. Additionally, the USCG OSC, EPA OSC, or State OSC can be notified. If Sector Jacksonville’s ICC receives a report of a pollution incident, the first action taken is to complete the Oil and Hazardous Substance Incident Notification Sheet. When MDE Emergency Response Division receives a report of a pollution incident, they complete a First Report of Incident (FRI) and dispatch resources as needed. When EPA receives a report within the Coastal Zone, they contact MDE and USCG to ensure they are aware of the situation.

2. Preliminary Assessment and Initiation of Action.
The agencies notified shall conduct a preliminary assessment of the situation using available information. They shall determine the following:
   A. The magnitude and severity of the release. This includes:
      (1) Verifying the report (if anonymous or of questionable validity);
      (2) Making phone calls to obtain amplifying information;
      (3) Assessing danger to the environment and public health; and
      (4) Ensuring source is secured, if possible.
   B. The feasibility of removal. This includes answering the following questions:
      (1) Will cleanup cause more damage to the environment than allowing natural dissipation?
      (2) Can cleanup be initiated before pollutant disperses?
      (3) Can equipment be deployed without excessive risk to personnel?
      (4) Can the Responsible Party be identified?
1429.4 Containment, Countermeasures, Cleanup and Disposal

1. Defensive actions should begin as soon as possible after a pollution incident is discovered. These actions include, but are not limited to:
   A. Containment measures and monitoring the speed and direction of a pollutant, including placement of boom and barriers for protection, and the use of chemicals and other materials to control the spread of a pollutant;
   B. Measures to warn or evacuate the public; notify State and local Emergency Operation Centers;
   C. Provisions for temporary drinking water sources;
   D. Removal, cleanup, and disposal measures; includes shoreline cleanup, use of equipment on floating and sunken pollutants, and the use of disposal facilities;
   E. Providing navigational cautions while response activities are underway;

2. One of the most important initial actions under this phase is the containment of the spill. Securing the source and placement of boom or any other means to prevent the spread of oil mitigates damage and buys valuable time to find the RP, initiate cleanup actions, and conduct actions to investigate.

1429.5 Funding of Response and Cleanup Actions

1. There are two sources of funding for response actions under this phase.
   A. Responsible Party. When the RP assume financial responsibility for the cleanup actions, the OSC needs only to monitor removal operations.
   B. When the Responsible Party refuses to take proper cleanup actions or is not yet identified, the OSC declares a Federal spill and uses Federal funds detailed in Section 6000 Finance of this plan.

2. To prevent federalization of a spill, the RP must accept OSC direction of the response and cleanup activities. A representative who has the authority to make financial commitments on behalf of the owner should be directed to report to the Incident Command Post. The OSC will then issue a Notice of Federal Interest (NOFI) to the RP. The NOFI informs the RP that they may be held financially liable for the cost of the cleanup. If the RP elects not to take financial responsibility, they may then be subject to three times the federal costs of cleanup or $32,500 per day per discharge.

1429.6 Directing Removal Operations

When the RP conducts cleanup and removal operations, the OSC must ensure their actions are proper, meaning timely and adequate. Monitoring tasks include:
1. Prioritizing areas to be cleaned and the degree of removal required;
2. Providing advice on removal methods;
3. Ensuring authorized cleanup methods are used;
4. Ensuring cleanup techniques and equipment result in the least possible environmental damage or interference with designated water uses and;
5. Recommending changes to improve cleanup operations.

1429.7 Partial Federalization of Response Activities

A partial federalization occurs when the RP assumes cleanup responsibility and is conducting the cleanup in a satisfactory manner, but circumstances, such as spill location, environmental concerns, or cleanup requirements, exceed the RP’s capabilities. Examples include the use of Coast Guard resources or those from other federal, state,
or local government agencies desiring reimbursement from the Oil Spill Liability Trust Fund (OSLTF).

1. If the RP’s actions are deemed insufficient by the FOSC then the next option available is to issue an Administrative Order. This letter will reference the Notice of Federal Interest (NOFI) issued earlier, and will inform the RP that their actions are not commensurate with the level of response necessary to mitigate the particular incident. The Administrative Order will further advise the RP that they must take the specific actions listed in the attachment to the Administrative Order or, that their failure or refusal to provide all reasonable cooperation and assistance requested by the OSC will eliminate any defense or entitlement to limited liability, which otherwise might be available. Furthermore, failure or refusal to comply with an order issued by the OSC will also eliminate any defense or entitlement to limited liability. The RP is further advised that failure to comply with the Administrative Order may also subject the RP to a additional civil penalties.

2. A spill response effort can be partially federalized by the direction of the OSC, at the request of the RP, or the federal, state, or local government agency, which has jurisdiction over the spill.

### 1429.8 Federal Assumption of Response Activities

The following actions should be taken to federalize a spill:

1. The USCG FOSC will issue a Letter of Federal Assumption (LFA) to any suspected RP if response actions are not proper and a NOFI has already been issued to these parties. This may encourage the suspected RP to initiate cleanup actions. A witness shall accompany the person who presents the LFA. If the suspected RP will not sign the LFA, the witness should sign it. This will verify that an attempt to present a LFA was made.

2. To obtain funds for a federal cleanup, a Federal Project Number (FPN) must be obtained by the Coast Guard Federal On-Scene Coordinator. The maximum amount the Coast Guard FOSC may request to hire contractors is $25,000 without approval from the Atlantic Area Maintenance and Logistics Command (MLC) Contracting Officer.

3. Select a commercial cleanup contractor from the Basic Ordering Agreement (BOA) approved by MLC. Selection should be based on the following factors:
   A. Contractor’s ability to respond and handle the spill;
   B. Contractor’s proximity to the spill in relation to need or urgency;
   C. Estimated contractor costs.

### 1429.9 Supervising Federally Funded Removal Operations

The OSC shall supervise all operations supported by Federal funds. Supervisory activities include:

1. Having a Coast Guard supervisor at each operational site;
2. Ensuring OSC’s instructions and priorities are carried out and that recommended changes be forwarded to the OSC;
3. Ensuring daily completion of Pollution Incident Daily Resource Reports to record contractor activities and the use of resources;
4. Maintaining daily records of activities and cost of resources by other federal, state, or local agencies whose expenses may be reimbursed with Federal pollution funds;
5. Advising the contractor’s representative of unsafe, unauthorized, or unsatisfactory operations; and
6. Submitting a daily Pollution Report (POLREP) for all Federal spills.
1429.10 Site Evaluation and National Priorities List Determination

The EPA will conduct site Evaluation and National Priority List determination.

1429.11 Remedial Action

The EPA will conduct site Evaluation and National Priority List determination for remedial action.

1429.12 Documentation and Cost Recovery

The following sources can assist in identifying a substance:

1. Shipping papers
2. Material Safety Data Sheets (MSDS)
3. Manifests
4. Placards and labels
5. Shipper or carrier
6. CHEMTREC (1-800-424-9300)

Numerous reference books, computer systems, and professional organizations can assist in further assessing the potential hazards.

1430 National Response Structure

The NRS is a three-tiered response and preparedness mechanism that supports the pre-designated FOSC in coordinating national, regional, local government agencies, industry, and the responsible party during response operations. The FOSC plans and coordinates response strategies on scene, using the support of the National Response Team (NRT), Regional Response Team (RRT), Area Committees, and responsible parties to supply trained personnel, equipment, and scientific support to complete an immediate and effective response to any oil or hazardous substance discharge.

1440 National Response Team (NRT)

The NRT’s membership consists of 15 federal agencies with responsibilities, interests and expertise in various aspects of emergency response to pollution incidents. The EPA serves as chairman and the Coast Guard serves as Vice-chairman of the NRT, except when activated for a specific incident. The NRT is primarily a national planning, policy and coordination body and does not respond directly to incidents. The NRT provides policy guidance prior to an incident and assistance as requested by an OSC via an RRT during an incident. NRT assistance usually takes the form of technical advice, access to additional resources/equipment, or coordination with other RRTs.

National Response Team Members are as follows:
- National Response Center (NRC)
- Environmental Protection Agency-Chair
- U.S. Coast Guard Vice-Chair
- Department of Agriculture (DOA)
- Department of Commerce (DOC)
- Department of Defense (DOD)
- Department of Energy (DOE)
- Department of Health and Human Services (HHS)
- Department of Interior (DOI)
- Department of Justice (DOJ)
- Department of Labor (DOL)
- Department of State (DOS)
- Department of Transportation (DOT)
- Environmental Protection Agency (EPA)
- Federal Emergency Management Agency (FEMA)
- Government Supply Agency (GSA)
- National Response Center (NRC)
- Nuclear Regulatory Commission (NRC)
- Regional Response Team (RRT)
- Regional Response Center (RRC)

1450 Spills of National Significance (SONS)

This section outlines the National Policy for responding to Spills of National Significance (SONS)

1451 SONS Response Structure

1451.1 SONS Declaration and National Incident Task Force (NITF) Activation

Only the Commandant of the Coast Guard or the Administrator of the EPA is empowered to declare a SONS. A SONS in the Coastal Zone is the responsibility of the USCG. A Coast Guard Area or District Commander may recommend the Commandant declare a SONS for the following reasons:
1. Multiple OSC zones/districts/international borders are affected;
2. A significant impact on or threat to the public health and welfare, wildlife, population, economy and/or property over a broad geographic area;
3. A protracted period of discharge and/or expected cleanup;
4. A significant public concern and demand for action by parties associated with the event;
5. The existence of or the potential for a high level of political and media interest.

The NRC will notify the Commandant of a possible SONS incident. If the Commandant declares a SONS, the following actions will occur:
1. The National Incident Commander (NIC) will be designated.
2. The NIC will deploy the National Incident Task Force (NITF) Initial Response Team.
3. Other cognizant departments and agencies will be notified.
4. All pre-designated NITF personnel will be placed on immediate alert.
1451.2 National Incident Task Force (NITF) Initial Response Team Operation

The “time-phased implementation” of the NITF will be an integral component of an effective response. The key to effectively implementing the NITF organization is the NITF Initial Response Team. During a catastrophic spill response, an emergent organization will evolve, based on the dynamics of the situation and the capabilities available. The Initial Response Team’s role is to ensure a continued and effective response by controlling the emerging organization’s growth. Additionally, the Initial Response Team will provide essential continuity between the local OSC and the incoming NITF organization during the transition.

1451.3 The National Incident Task Force (NITF) Functional Components

The role of the NITF is to develop and enact the National Response Strategy to a SONS.

National Incident Commander (NIC):
The NIC will be appointed by the Commandant of the Coast Guard, and will be a Coast Guard Vice Admiral. The NIC will exercise operational and administrative control over the NITF organization, and assumes the role of OSC. The OSC has the authority to coordinate all federal, state, local and private actions related to containment and cleanup of a discharge.

Specific responsibilities of the NIC include:
1. Develop the response strategy to integrate federal, state and local agencies, the RP and special interest groups into a coordinated and effective spill response team in accordance with the NCP.
2. Effectively apply personnel and equipment resources to meet emergent or contingent strategic situations.
3. Coordinate external affairs during the response operation.

1451.4 Alternate National Incident Commander (ANIC)

The ANIC will normally be the Coast Guard District Commander in whose area of responsibility the spill occurs.

The ANIC will provide the NIC with valuable local knowledge and insight into regional response issues. After the initial “ramp up” of the SONS organization, the ANIC will resume normal duties as District Commander, except when called upon to relieve the NIC for short periods of time.

1451.5 Chief of Staff (COS)

This position will be filled by the Commanding Officer of the National Strike Force Coordination Center (NSFCC). The COS, utilizing cleanup management expertise, familiarity with response techniques, and relationships with other agencies and response organizations, will act as the principal advisor to the NIC on spill response strategy.

1451.6 Planning Division

The Environmental Coordination Division will assess the spill and the extent of environmental impact, provide technical and scientific coordination and support, and develop strategic plans for the NITF. Once the strategies and
priorities have been established, they will be promulgated as action plans and the Area Operations Coordinators (AOCs) will be responsible for the tactical implementation of these plans.

1451.7 Operations Section
The Operations Division will serve as the primary conduit for information to and from the field through a Joint Operations Center (JOC). The Operations Division will allocate and dispatch resources, and develop mission assignments, duty lists and other operational assignments to meet strategic goals and support tactical operations conducted by the AOCs. It will maintain the Communications Center (COMMCEN), and will be responsible for manning the center with watch sections 24 hours a day. The lead Coast Guard representative in the Operations Division will be the Coast Guard District (O) officer from an unaffected district. The division will report directly to the NIC via the COS and coordinate with, as necessary, other divisions, and the AOCs. It will have the following primary functions: cleanup and protection, staging, air operations, wildlife recovery & rehabilitation, and communications.

1451.8 Finance Division
The Finance Division will be responsible for financial and cost analysis aspects of the response. The lead Coast Guard representative will be from the Coast Guard’s Finance Center. The Finance Division will be primarily responsible for coordinating access and/or use of the Oil Spill Liability Trust Fund (OSLTF), accounting for costs incurred to the fund, and assuring prompt payment of approved invoices from contractors. The Finance Division will also handle federal and state access to the OSLTF. The Finance Department will report directly to the NIC via the COS and coordinate with, as necessary, other divisions, and the AOCs. The Finance Division has three primary functions: cost documentation, claims, and payment.

1451.9 Logistics Division
The lead Coast Guard representative will be from the respective USCG Maintenance Logistics Command (MLC). The Logistics Division is responsible for ensuring the prompt delivery of resources and supplies for operational support. The staff will work with other NITF Divisions to manage and support requests for additional response resources. The Logistics Division has four primary functions: support, service, contracting, and personnel. It will also maintain the Joint Transportation Center (JTC). The Logistics Division will report directly to the NIC via the COS and coordinate with, as necessary, other divisions and the AOCs.

1451.10 External Affairs Division
The External Affairs Division will provide accurate and timely information to the public and will coordinate protocol issues for VIPs. The division will be responsible for public affairs releases, setting up itineraries, scheduling public meetings, developing video and slide presentations, speeches and short factual documents, and providing other general information about the spill. The division will report directly to the NIC via the COS and coordinate with, as necessary, other divisions, the lead administrative trustee for Natural Resource Damage Assessment (NRDA) and the AOCs.
1451.11 Area Operations Coordinators (AOCs)

To effectively utilize the talents, relationships, and coordination skills developed by the OSCs through Area Committees, each predesignated OSC, whose area of responsibility is affected by the spill, will assume the role of AOC. The AOCs will directly oversee tactical response operations, identifying response priorities that are consistent with the NITF strategy, and deploying and operating response resources. The NITF will provide strategic direction and support to the AOCs, and will coordinate the efforts of AOCs to ensure strategies are effectively and consistently carried out. During a SONS, the AOC, who is primarily affected by the spill, will assume subsequent responsibility for strategic issues upon deactivation of the NITF organization.

1460 Regional Response Team (RRT)

There are 13 RRTs, one for each of the ten federal regions and Alaska, the Caribbean and the Pacific Basin. Each RRT has Federal and State representation. EPA and the Coast Guard co-chair the RRTs. The Jacksonville geographic area falls under the cognizance of Region IV. Like the NRT, RRTs are planning, policy and coordinating bodies, and do not respond directly to incidents. The RRTs develop Regional Contingency Plans for their regions. Plans address region-specific issues and provide guidance to the OSCs for developing their area plans. The RRTs also provide one level of review for the Area Contingency Plans. The RRTs may be activated for specific incidents when requested by the OSC. If the assistance requested by an OSC exceeds an RRT's capability, the RRT may request assistance from the NRT. During an incident the RRT may either be alerted by telephone or convened. The cognizant RRTs will also be consulted by the OSC on the approval/disapproval of the use of chemical countermeasures when that decision has not been pre-approved.

1470 Area Response Structure

The establishment of an ICS Area Command can occur with the District Commander filling the role of Incident Area Commander. This organization would be particularly useful for incidents which are challenging to the local commanders but do not demand national attention. At this level, most billets to augment the local OSC response organization would be drawn from district level resources, District Response Groups, and aimed at reducing the overhead to be managed by the Incident Commander. Further, Incident Management Teams can be called upon to augment the Incident Commander’s staff. This ability to project a flexible response facilitates an expanding or contracting response effort.

The Incident Area Commander will have overall responsibility for the incident strategic management. The Incident Commanders (FOSCs), will be notified of the establishment of an Area Command with the best-qualified personnel with respect to functional areas. The functions of an Area Command require personnel that have experience in, and are qualified to oversee, complex response situations. The Incident Area Command organization operates under the same basic principles as does the Incident Command System with the organization typically consisting of the Incident Area Commander and Incident Area Command Logistics Chief, Planning Chief, Resources Unit Leader, Situation Unit Leader, Information Officer and Liaison Officer. Flexibility exists to add a Finance Chief and/or a Chief of Staff.

The Incident Area Command has the responsibility to set the overall incident-related strategic priorities, allocate critical resources based on those priorities, ensure that the incident is properly managed and ensure incident objectives are met, and do not conflict with each other or with agency policy. When an Incident Area Command is established, Incident Commanders (FOSCs), will report to the Incident Area Commander with the Incident Area Commander accountable to the Commandant.

The suggested composition of an ICS Area Command is as follows:
<table>
<thead>
<tr>
<th>Incident Area-Command Position</th>
<th>Suggested/Recommended Billet</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICS Area Unified Commander</td>
<td>USCG Area Commander</td>
</tr>
<tr>
<td>Deputy ICS Area Commander</td>
<td>Lant/PacArea(m)(O-6)</td>
</tr>
<tr>
<td></td>
<td>G-MO (O-6) or CO NSFCC (O-6)</td>
</tr>
<tr>
<td>Liaison Officer</td>
<td>District (Pm)/RRT Co-Chair (O-6)</td>
</tr>
<tr>
<td>Information Officer</td>
<td>G-CP (O-6)</td>
</tr>
<tr>
<td>Protocol Officer</td>
<td>G-CC (O-5)</td>
</tr>
<tr>
<td>Public Affairs Officer</td>
<td>LANT/PAC AREA (ACP/PCP) (O-4)</td>
</tr>
<tr>
<td>Planning Section Chief</td>
<td>NSFCC CO/XO (O-6/5)</td>
</tr>
<tr>
<td>Situation Unit Leader</td>
<td>NSFCC PREP Team Leader (O-4)</td>
</tr>
<tr>
<td>Resource Unit Leader</td>
<td>NSFCC OPS (O-4)</td>
</tr>
<tr>
<td>Logistics Section Chief</td>
<td>MLC Lant/PAC (0-6)</td>
</tr>
<tr>
<td>Public Affairs</td>
<td></td>
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<tr>
<td>National Incident Commander (NIC)</td>
<td></td>
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<tr>
<td>Regional Incident Commander (RIC)</td>
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</tbody>
</table>
1480 Incident Command System

To standardize response management within the marine safety field, the Coast Guard has adopted the Incident Command System (ICS). While Vessel Response Plans (VRPs) and Facility Response Plans (FRPs) are required to have a management system compatible with the Area Contingency Plan, there is no requirement for VRPs and FRPs to follow strict ICS. Where appropriate, the FOSC shall establish a unified command consisting of the FOSC, the State Incident Commander, and the Responsible Party Incident Manager. The FOSC is responsible for assigning individuals from within the response community (Federal, State, local or private), as necessary, to fill the designated positions. It should be noted, however, that one individual may fill several of the designated positions. These assignments will be predicated on the nature of the spill and the need for extensive Manning. A major advantage of the ICS organization is the ability to expand and contract organizationally as required by the incident. For some
incidents only a few of the organization’s functional elements may be required. For larger or more complicated responses, additional positions exist within the ICS framework to meet virtually any need.

The ICS organization is built around five major functions that are applied on any incident, large or small. These functions are the Incident Command, and the Operations, Planning, Logistics and Finance Sections. These functions are detailed in Section 2000-6000 of this plan. These sections provide generic descriptions and apply directly to the Sector Jacksonville COTP area of responsibility. See Figure 1 - Standard Incident Command System. Incident Command System forms and job aids can be obtained in either a database or Word format.

Refer to Appendix 9720.100 Incident Management Handbook for the FOG and 9720.200 ICS Form Database for ICS forms. This section will only provide a brief overview and information specific to the COTP Jacksonville zone.

**Figure 1 - Standard Incident Command System**
1490 Area Exercise Mechanism

The opportunity to exercise this plan and components therein presents itself via the National Preparedness for Response Exercise Program (NPREP or PREP). The final PREP guidelines booklet was published in August 1994 and is available at no charge by writing to:

TASC Dept Warehouse
3341 Q 75th Ave
Landover, MD 20785.
Publication number USCG-X0191
Additional PREP information can be found at the following web site: http://www.uscg.mil/hq/g-m/gmhome.htm.

Although the PREP guidelines also apply to vessel and facility plan holders, this section specifically discusses the PREP requirements for the Planning Areas as designated in section 1400 National Response System of this plan. Area exercises are divided into internal and external classification categories. The internal exercises are Notification Drills (quarterly), Spill Management Team Tabletop Exercises (annually), Equipment Deployment Exercises (annually), and Government Initiated Unannounced Exercises (maximum of 4 per area per year). The external exercises are Government led exercises and Industry led exercises. The Federal On-scene Coordinator (FOSC) is responsible for planning, designing, and executing the internal exercises. The National Strike Force Coordination Center (NSFCC) is responsible for scheduling the external exercises while the appropriate FOSC remains involved in the planning, design, and execution of the Government led exercises. The FOSC will consult in exercise development and will participate as appropriate in the Industry led exercises. Members of the Area Committee and response community will be involved in each type of exercise to some degree, varying from the confirmation of a phone number to assisting in the design of a the scenario and performing as a controller or evaluator for the exercise. Participation in the PREP and utilization of the PREP guidance will ensure that all federal exercise requirements mandated by OPA 90 have been met. As part of their normal operations, representatives of the Captain of the Port will verify vessel and facility plan holders are conducting and recording required exercises.

14100 National Response Framework

A concerted national effort to prevent terrorist attacks within the United States; reduce America's vulnerability to terrorism, major disasters, and other emergencies; and minimize the damage and recover from attacks, major disasters, and other emergencies that occur.

Achieving these homeland security objectives is a challenge requiring bold steps and adjustments to established structures, processes, and protocols. An important initiative called for in the above documents is the development and implementation of a National Response Framework (NRF), predicated on a new National Incident Management System (NIMS), that aligns the patchwork of Federal special-purpose incident management and emergency response plans into an effective and efficient structure. Together, the NRF and the NIMS (published March 1, 2004) integrate the capabilities and resources of various governmental jurisdictions, incident management and emergency response disciplines, nongovernmental organizations (NGOs), and the private sector into a cohesive, coordinated, and seamless national framework for domestic incident management.

The NRF, using the NIMS, is an all-hazards plan that provides the structure and mechanisms for national level policy and operational coordination for domestic incident management. Consistent with the model provided in the NIMS, the NRF can be partially or fully implemented in the context of a threat, anticipation of a significant event, or the response to a significant event. Selective implementation through the activation of one or more of the system’s components allows maximum flexibility in meeting the unique operational and information-sharing requirements of the situation at hand and enabling effective interaction between various Federal and non-Federal entities.
14110 Federal Radiological Emergency Response Plan

The FRERP covers any peacetime radiological emergency that has actual, potential, or perceived radiological consequences within the United States, its Territories, possessions, or territorial waters and that could require a response by the Federal Government. The level of the Federal response to a specific emergency will be based on the type and/or amount of radioactive material involved, the location of the emergency, the impact on or the potential for impact on the public and environment, and the size of the affected area. Emergencies occurring at fixed nuclear facilities or during the transportation of radioactive materials, including nuclear weapons, fall within the scope of the Plan regardless of whether the facility or radioactive materials are publicly or privately owned, Federally regulated, regulated by an Agreement State, or not regulated at all. (Under the Atomic Energy Act of 1954 [Subsection 274.b.], the NRC has relinquished to certain States its regulatory authority for licensing the use of source, byproduct, and small quantities of special nuclear material.) http://www.fas.org/nuke/guide/usa/doctrine/national/frerp.htm

1500 State and Local Response System

State Response System/Policy

1510.1 State of Florida

In the state of Florida, oil spills in the coastal zone are the responsibility of the Department of Environmental Protection. It is the policy of the State, to assist the Federal On-Scene Coordinator in response to pollutant spills in Florida. No state funds shall be expended for the removal of a coastal pollutant until federal funds have been used to the maximum extent possible, or until federal authorities have declined to expend federal funds in a cleanup effort. It is the policy of the state to respond immediately to all oil spills, control the source of any oil spill to contain any discharge to the maximum extent possible. Mechanical and other physical control methods shall be the preferred method for removal of oil from the environment with subsequent proper disposal. The option of taking no mitigating actions should be considered when such actions would cause greater environmental damage than the spilled oil alone. The use of oil spill cleanup agents shall be subject to the Administrator of FDEP’s best judgment and coordinated with the federal OSC and EPA representative to the RRT.

Whenever it is determined the responsible party for the discharge is taking adequate action to remove and mitigate its effects, the principle thrust of the state is to observe, monitor and provide advice and counsel, as may be necessary. The FOSC or FDEP will take steps to access the applicable state or federal fund to ensure adequate cleanup whenever they determine the responsible party for the discharge was unknown, did not act promptly, take proper and appropriate actions to contain, cleanup and dispose of the oil or oily debris, or the total clean up costs are beyond those expected to be borne by the responsible party. In addition, the responsible party must also protect the environment and adhere to safety practices.

The State Warning Point is the state of Florida’s emergency notification center. The State Warning Point can contact the appropriate FDEP office and other emergency responders in the event of an emergency. The phone number is (850) 413-9911 or 1-800-320-0519.

1510.2 State of Georgia

Under provisions of Article 3, Section 38-3-22, of the Georgia Emergency Management Act of 1981, as amended, the Governor has the authority to activate and implement all or selected response actions of State and local emergency plans and may delegate this authority to the Director of Emergency Management in advance of any emergency or disaster declaration.
Camden County is the only county in Georgia that is in the Sector Jacksonville area of responsibility.

It is the policy of the State of Georgia to be prepared within its resources to deal with any emergency or disaster resulting from natural or man-made causes. Emergency functions and services of the State will be maintained in a high state of readiness to protect and save lives, prevent or minimize damage to property, and provide for the benefit of all citizens who are threatened by an emergency, or who become victims of any disaster or catastrophe. Further, it is the policy of the State to provide emergency services assistance to local governments upon request and the determination that local capability is insufficient to cope with the situation or that resources have been expended. These services shall be coordinated to the maximum extent with comparable activities of other local governments, other states, the Federal government, and private agencies of every type. The Governor shall determine the level and duration of State commitment of resources at the time of each specific request or disaster situation and prior to any declaration or request for Federal assistance.

Parties responsible for oil spills or hazardous material releases are required to make notification to the Georgia Department of Natural Resources. The responsible party is also responsible for cleanup of the spill or release and all associated cost.

1520 Local Response System/Policy

Within the area of responsibility of this plan it is the policy of the Federal On-Scene Coordinator, as well as National policy, that all reports of discharges of oil or hazardous materials be investigated. In the Jacksonville and Cape Canaveral areas, spill reports will normally be investigated by Sector Jacksonville personnel. In areas between these two offices the FDEP will often conduct the initial investigation. When reports of pollution in the St. Johns River south of Jacksonville are received, FFWFPC may initially verify the existence and severity of a discharge. Discharges in Georgia may be verified by GDNR.

Several factors will be considered to determine how an oil discharge will be cleaned up. These factors include, but are not limited to:

- Type of material (oil) including toxicity and persistence;
  1. Amount of material;
  2. Location of discharge in relation to environmentally sensitive areas;
  3. Hazards to response personnel;
  4. Technical Probability of Success;
  5. Response time of clean-up contractor.

Sector Jacksonville maintains a conservative response posture, in regard to hazardous material response, with level D personnel protection which prevents entry of unit personnel into hazardous environments. For situations requiring entry into hazardous environments, this unit shall rely on the capabilities of the Gulf Strike Team, Region IV EPA and ERT, and the City of Jacksonville Fire Department Hazardous Material Team, Station 9.

The COTP Jacksonville has determined the ability of Fire Station 9 and other agencies in agreement with the Jacksonville Florida Interagency Hazardous Material Response Standard Operating Procedures to be adequate for response to hazardous substance releases.

The OSC shall not relinquish any responsibility no matter who is executing the actual response, and shall monitor the response as necessary to ensure its adequacy. If a response is not adequate, the OSC shall, to the extent that resources are available, provide advice to responders or assume control of the response. The OSC does not need to extensively investigate an incident to determine the need for a response. If the release poses an obvious threat to public health or welfare, or the environment, the OSC should take appropriate actions as rapidly as circumstances dictate.
1520.1 Floating Drums

(As approved under the July 1995 MOA by the state of Florida and the U.S. Coast Guard.)

Often drums will be found in or near the water that contain Hazardous Material or unknown materials which must be handled as Hazardous Material until determined to be otherwise. In accordance with an agreement between the U.S. Coast Guard Seventh District and the Florida Department of Environmental Protection the following guidance applies:

The retrieval, testing, and disposal of drums containing hazardous materials or suspected of containing hazardous materials, found floating on the waters within the FOSC zone will be the responsibility of the U.S. Coast Guard.

The retrieval, testing, and disposal of drums containing hazardous materials or suspected of containing hazardous materials, found intact on the beach, or on the banks of waters located within the FOSC zone, will be the responsibility of the Florida Department of Environmental Protection.

Drums containing hazardous materials or suspected of containing hazardous materials found to be leaking product onto the beach, or on the banks of waters located within the FOSC zone, will be the responsibility of the U.S. Coast Guard.

1520.2 Sector Jacksonville Hazardous Material Response Capabilities

Sector Jacksonville is not specially trained or equipped to respond to hazardous material releases. Sector Jacksonville maintains a level D response capability with basic training in the management of hazardous material releases. In addition, the Sector has an extensive library of chemical reference materials and has access to the Computer-Aided Management of Emergency Operations (CAMEO) and Aerial Locations of Hazardous Atmospheres (ALOHA) computer software programs. The programs help pollution investigators identify pollutants and inform them of the hazards associated with particular material and the necessary safety equipment needed for response. The ALOHA program produces an aerial map of airborne chemical releases and can help identify those areas which should be avoided or evacuated.

1520.3 Local Hazmat Teams

The City of Jacksonville Fire Department has the only certified HAZMAT response team in the northern half of Sector Jacksonville's response zone. The city has a mutual assistance agreement with all of the surrounding counties and has even responded to a HAZMAT incident in Camden County Georgia. The southern half of Sector Jacksonville's zone is serviced by the Brevard County HAZMAT response team which has a similar mutual assistance agreement with its surrounding counties. HAZMAT response teams have Level A, B, and C HAZMAT response entry capabilities and are trained to contain and mitigate any foreseeable hazardous material release in the COTP Jacksonville AOR.

1520.4 USCG Strike Team Hazardous Material Response Capabilities

The MSM (Vol 9, 5.C.1) suggests the assistance of NSF resources (people or equipment) whenever:

- A medium or major discharge has occurred, or
- Response will last over two days.
In the Federal On Scene Coordinator’s/Incident Commander FOSC’s/ICs judgment, NSF capabilities are necessary. The FOSC may call Special Team support including the National Strike Force (NSF) for assistance. In Northeast and Eastern Central Florida, the Gulf Strike Team is the lead Strike Team and Regional Response Team IV for Insitu Burning. Their support capabilities include:

- Oil & Chemical Lightering Response Support – includes dewatering equipment
- Vessel Damage Assessment Support – conduct salvage initial damage assessments
- Incident Management Support – fill critical field and command post ICS positions
- Oil Spill Response Support – Equipment operators for Prepositioned CG equipment, SCAT teams, Dispersant & Insitu burn monitoring
- Command & Control Support – mobile communications support
- Logistics support- Identifying, locating, and assisting in the transportation of specialized equipment needed for response
- Public Affairs Support through NSF Public Information Assist Team (PIAT) – Crisis Media relations, establish Joint Information Centers, coordinate press briefings, risk communications, community relations

Other Special Teams:

- Marine Safety Center Salvage Emergency Response Team (SERT) (vessel salvage models, salvage issues) (For more info click here)
- US Navy SUPSALV Vessel salvage engineer needed on scene? SUPSALV also maintains one of the world's largest inventories of pollution response equipment. All equipment is staged ready for immediate deployment and is available to all federal agencies. A highly trained team of mechanics, with tremendous experience in the marine response field, performs all maintenance and operations) (For more info click here)
- EPA Environmental Response Team (chemical air monitoring & sampling, on site chemical analysis) (For more info click here)
- NOAA Scientific Support Coordinator (fate of oil, situation displays, shoreline cleanup expertise, oil spill trajectories, interaction with natural resource trustees) (For more info click here)
- EPA Radiological Emergency Response Team (conducting environmental monitoring, sampling, and data analysis, assessing the national impact of any release on public health and the environment through the Agency’s Environmental Radiation Ambient Monitoring System, providing technical advice on containment and cleanup of the radiological contamination, assisting in site restoration and recovery) (For more info click here)
- DOE Radiological Support (DOE Emergency Response Officer.) (For more information see FRMAC)
- PIAT

The primary organizations involved in monitoring and/or directing response efforts are Coast Guard Sector Jacksonville and the Florida Department of Environmental Protection. The nature of the event will dictate the degree of involvement by each organization. For a hazardous materials release, the chief of the local fire department having a HAZMAT team will be the incident commander. For significant incidents that may involve hazard to the public and/or evacuations, the Emergency Preparedness Division for the county in which the release occurred will also become involved.

1521 Local Emergency Planning Committees (LEPCs)

As required by the Superfund Amendment and Reauthorization Act (SARA), each of the 26 Local Emergency Planning Committees (LEPCs) within this AOR have created contingency plans for responding to hazardous
substance incidents. The fire department is often the lead agency for these incidents, and the person directing countermeasures is known as the Incident Commander. The plans detail response actions and resources for each particular area.

1522 Local Government Involvement

In many cases, local government agencies have interest and can provide valuable expertise for ongoing pollution incidents. Local government involvement should be coordinated through the LEPC, the state RRT, and on-scene representatives. Additional capabilities include, but are not limited to, media/public relations, socio-economic issues, logistics, access, control and evacuation, fire fighting, law enforcement, and emergency medical assistance.

1600 National Policy and Doctrine

a) Describe National level guiding response doctrine (Boiler plate provided by G-MOR)
   * the National Response System (NRT, RRTs, Area Committees), as outlined in
   * the National Oil and Hazardous Substances Pollution Contingency Plan (NCP, 40CFR300), which is supported by
     * the National Response Framework (NRF) and it's Emergency Support Functions (ESF-10 in particular)
     * COMDTINST 16471.3 Area Contingency Plan Organization, Content, Revision Cycle, and Distribution (21AUG2000, currently under revision)
     * COMDT (G-M) MEMORANDUM 16471, 22FEB2005, Area Contingency Plan Development
     * CIM 16000.14 MARINE SAFETY MANUAL, VOLUME IX, MARINE ENVIRONMENTAL PROTECTION
     * CIM 3010.11C CONTINGENCY PREPAREDNESS PLANNING MANUAL, VOLUME I: PLANNING DOCTRINE AND POLICY
     * CIM 3010.12C CONTINGENCY PREPAREDNESS PLANNING MANUAL, VOL II; PERSONNEL AND EQUIPMENT REQUIREMENTS
     * CIM 3010.13B CONTINGENCY PREPAREDNESS PLANNING MANUAL, VOL III-EXERCISES

b) Describe Regional level guiding response doctrine (Boiler plate provided by District)
   * the Regional Contingency Plan (RCP), which shall follow the format of the NCP (40CFR300.210(b)), as developed by
     * the Regional Response Team (RRT)(40CFR300.115)(btw, that would be you;)
     * District Response Group (DRG)(40CFR300.145(g)(1))
     * District Response Advisory Team (DRAT)(40CFR300.145(g)(1))

c) Describe Area level guiding response doctrine
   * the Area Contingency Plan (40CFR300.210(c)), as developed by
     * the Area Committee (40CFR300.205(c))

d) Describe the Federal policy on public vs. private resource utilization (Boiler plate provided by G-MOR)
   * ... If the OSC determines that effective and immediate removal, mitigation, or prevention of a discharge can be achieved by private party efforts, and where the discharge does not pose a substantial threat to the public health or welfare of the United States, determine whether the responsible party or other person is properly carrying out removal. Removal is being done properly when:
     (i) The responsible party is applying the resources called for in its response plan to effectively and immediately remove, minimize, or mitigate threat(s) to public health and welfare and the environment; and
(ii) The removal efforts are in accordance with applicable regulations, including the NCP. Even if the OSC supplements responsible party resources with government resources, the spill response will not be considered improper, unless specifically determined by the OSC.

(4) Where appropriate, determine whether a state or political subdivision thereof has the capability to carry out any or all removal actions. If so, the OSC may arrange funding to support these actions. (40 CFR 300.320(a)(3))

e) Describe the Best Response concept, including use of Best Response surveys following incidents and exercises (Boiler Plate provided by G-MOR)

* U.S. Coast Guard National Response Framework Concept of Operations (CONOP), Version 1.0, December 2007
  * After Action Reports (AARs) contained in the Coast Guard Standard After Action Information and Lessons Learned System (CG-SAILS) of the CG's Contingency Preparedness System (CPS)
  <http://llintra.comdt.uscg.mil/cps/>
  * Remedial Action Issues (RAIs) contained in the Remedial Action Management Program (RAMP) of the CG's Contingency Preparedness System (CPS)
  * BP Deepwater Horizon Oil Spill Incident Specific Preparedness Review (ISPR)(JAN2011)(CIM 16000.14 MARINE SAFETY MANUAL, VOLUME IX, Sec. 4.C)
  * On Scene Coordinator Report, Deepwater Horizon Oil Spill (SEP2011)(40 CFR 300.165)

1610 Public vs. Private Resource Utilization

[RESERVED for development by the Commandant of the Coast Guard and the Commander, Seventh Coast Guard District].

1620 Best Response Concept

[RESERVED for development by the Commandant of the Coast Guard and the Commander, Seventh Coast Guard District].

1630 Cleanup Assessment Protocol (How Clean is Clean)

1640 Dispersant Pre-Approval/Monitoring/Decision Protocol

The area covered by this plan contains a high percentage of environmentally sensitive areas. Environmental sensitivity is primarily due to marsh habitat, shore birds, open shellfish beds, and habitat for several threatened and endangered species. Detailed description of the environmental sensitivity of the area may be found in 9710 Response Strategies to this plan.

Swift river currents coupled with the extensive marsh habitat make protection of sensitive shoreline difficult. Currents of up to 2.5 kts. are common in the Intracoastal Waterway (ICW) and main river channels. Currents in excess of 1 kt. are common in tributary creeks that drain marsh areas. The above criteria indicate that shoreline protection will only be effective for little more than a brief period of time. This places extreme importance on rapid
removal of oil from the water. Unfortunately, as shown by the equipment lists in this plan, there are inadequate numbers of oil removal devices (land or water based skimmers) in this area.

Spills offshore in the COTP Jacksonville area of responsibility are judged to be unlikely. In the event that one should occur, the projected area in which the oil would impact the shoreline along with the characteristics of the oil will determine whether dispersants should be considered as a cleanup method. Dispersants should be considered for use in water depths greater than 30 feet when oil is projected to impact areas of marsh or beaches with ecological or economic importance. These areas are judged to be essentially impossible to protect using boom. Damage, especially to shorebird nesting areas, is likely to be much more severe than the damage caused by the dispersed oil and dispersant. If the oil is predicted to impact sand beaches with little impact on sensitive environment of wildlife, justification for using dispersants are greatly reduced. While this does not preclude the use of dispersants to protect recreational resources, it does reduce the ecological benefit.

In general, dispersants should not be considered for use inshore (harbors, ICW, rivers, and creeks). Where water depth precludes successful dispersion without significant damage to fauna and flora. While failing to disperse oil in these areas will impact wading and diving birds, marsh mammals and intertidal organisms, this damage is likely to be less severe than the damage caused to organisms living in the water column, especially if devices, such as noise cannons, are employed to frighten birds.

Application of chemical countermeasures for spill remediation is regulated under Subpart J of 40 CFR PART 300, the National Contingency Plan (NCP). The NCP provides that the On-Scene Coordinator (OSC) with the concurrence of the USEPA representative to the Regional Response Team and the States with jurisdiction over the navigable waters threatened by the oil discharge, and in consultation with the Department of Commerce and Department of the Interior natural resource trustees, may authorize the use of dispersants and other chemical agents on oil discharges. All such dispersants or chemical agents shall be listed on the USEPA NCP Product Schedule.

The use of sinking agents is expressly prohibited by the National Contingency Plan.

1650 In-situ Burn Approval/Monitoring/Decision Protocol

The Region IV Regional Response Team policy statement dated April 1995 explains in detail the factors to be evaluated when the RRT is considering the use of in-situ burning. Appendix VI of the Region IV in-situ Burn Policy provides a decision tree intended for the OSC and SSC to use in evaluating an in situ burn. Information on in-situ burning equipment is found under the Fire Boom heading.

The volume of oil that can be removed by in-situ burning is the primary benefit to this countermeasure. In August of 1993, a joint US/Canada in-situ burning experiment off the coast of Newfoundland burned 12,760 gallons of Alberta Crude in 90 minutes with 99% efficiency. Considerable research has been presented on the theory and practical application of in situ burning. Through this research, the following parameters have been developed:

1) In situ burning of uncontained oil is usually not effective. The oil slick must be a minimum of 0.11 inches (2 mm) thick for effective ignition. While uncontained oil can be ignited, the burn efficiency will be significantly lower than that of contained oil.

2) If the slick thickness is greater than 0.11 inches, almost any type of oil can be ignited and burned in-situ. Under extreme weather conditions, heavy weathering of the oil and significant emulsification of the oil are factors that make ignition and burning more difficult. High viscosity oils will burn well once ignited.

3) In situ burning is very time sensitive. Emulsification of the oil makes it more difficult to ignite. Although emulsions up to 70% water will ignite under the correct conditions, burn efficiencies will be reduced.
4) The normal upper environmental limits for ignition are winds of 20 knots or less and seas of 4 feet or less. Fresh or un-emulsified oil can usually be ignited at well above these limits.

5) In situ burning reduces the slick thickness about 0.1 inches (2 mm) per minute or about 0.07 gallon per minute per square foot of oil.

PRE-AUTHORIZATION OF IN-SITU BURNING

The term "in-situ" applies to operations conducted for removal of oil by burning. These operations may apply during daylight or nighttime hours. In-situ burning operations will be conducted within the jurisdiction of the RRT IV region in accordance with this agreement and, in addition, where applicable, in accordance with protocols established in Letters of Agreement (LOA) between the USCG, EPA, DOI, DOC, and the affected state(s). The authority to authorize the use of in-situ burning provided under this Agreement to the USCG OSC may not be delegated. The following three zones have been established to specify pre-authorized locations and conditions under which burning may occur:

"A" ZONES -- PRE-AUTHORIZATION FOR OPEN-WATER

The "A" zone is defined as any area in Region IV, falling exclusively under federal jurisdiction; and not classified as a "B", or "R" ZONE; which is at least 3 miles seaward from any state coastline; and seaward of any state waters, or as designated by separate LOAs with each individual state, the USCG, EPA, DOI, and DOC. In the event that state jurisdiction extends beyond 3 miles from a state shoreline, pre-approval for the "A" zone applies only to those areas outside state jurisdiction unless a LOA is in place and specifically pre-authorizes in-situ burning within those state waters.

Within "A" zones, the USCG, EPA, DOC, DOI, and the state(s) agree that the decision to use in-situ burning rests solely with the pre-designated USCG OSC, and that no further approval, concurrence or consultation on the part of the USCG or the USCG OSC with EPA, DOC, DOI, or the state(s) is required.

The USCG agrees with EPA, DOC, DOI, and the state(s) that the USCG will immediately notify said agencies and affected state(s) of a decision to conduct burning within the "A" zone, via RRT IV representatives.

"B" ZONES -- WATERS REQUIRING CASE-BY-CASE APPROVAL

A "B" zone is defined as any area in the RRT IV region falling under state or special management jurisdiction which is not classified as an "A", or "R" zone.

"B" zones are all areas falling: 1) anywhere within state waters, 2) waters less than 30 feet in depth that contain living reefs, 3) waters designated as a marine reserve, National Marine Sanctuary, National or State Wildlife Refuge, unit of the National Park Service, proposed or designated Critical Habitats, and 4) mangrove areas, or coastal wetlands. Coastal wetlands include submerged algal beds and submerged sea grass beds.

Where a LOA is in effect between the USCG, EPA, DOI, DOC, and the affected state(s); the policy for pre-authorization established under the provisions of said LOA shall preempt the policy herein established for zones otherwise designated as falling in the "B" zone. In the event that a Letter of Agreement is not in effect for areas falling within the "B" zone, the following protocols shall apply:

1) If the OSC feels that in-situ burning should be used in areas falling in a "B" zone, a request for authorization must be submitted to the RRT and the affected state(s), along with the required information listed in the in-situ burning Application/Checklist form, found in Appendix VI of the RRT IV In-situ Burn Policy. 2) The OSC's decision to use in-situ burning shall be made after consulting with RRT IV representatives of state and federal trustee agencies to ensure that the best available information pertaining to the presence or absence of natural resources at the burn site is obtained. 3) The OSC is only granted authority to conduct in-situ burning in the "B" zone when consent has been
given by EPA and the affected state(s) and after consultation with, DOI and DOC. 4) The RRT IV will respond to the OSC's request for authorization to burn in zone "B" within four hours from the time of notification. If the RRT IV has not responded to a request for authorization to burn in zone "B" within four hours, then the OSC may proceed with in-situ burn operations.

The USCG agrees with EPA, DOC, DOI, and the state(s) that the USCG will immediately notify said agencies and affected state(s) of a decision to initiate an approved burn within a "B" zone via RRT IV representatives.

"R" ZONES -- EXCLUSION ZONES

An "R" zone is defined as any area in the RRT IV region falling under state or special management jurisdiction which is not classified as an "A" or "B" zone.

The "R" zone is that area designated by the RRT IV as an exclusion zone. No in-situ burning operations will be conducted in the "R" zone unless 1) in-situ burning is necessary to prevent or mitigate a risk to human health and safety; and/or 2) an emergency modification of this agreement is made on an incident-specific basis.

RRT IV currently has not designated any areas as "R" zones, but retains the right to include areas for exclusion at a future point in time if it feels this is warranted.

PROTOCOLS

The following requirements apply to the use of all burning operations under the provisions of this policy:

1. Health and Safety Concerns -- Operators: Assuring workers' health and safety is the responsibility of employers and the USCG OSC who must comply with all Occupational Health and Safety Administration (OSHA) regulations. Prior to any in-situ burn operations, a site safety plan must be submitted and approved by the OSC. Public: The burning should be stopped if it is determined that it becomes an unacceptable health hazard due to operational or smoke exposure concerns to responders or the general public. If at any time, exposure limits are expected to exceed national federal air quality standards in nearby populated areas, as a result of in-situ burning operations, and then in-situ burning operations will immediately cease. The Level of Concern (LOC) for particulates for the general public in the RRT IV region is 150 ug/m3 (PM-10) averaged over 1 hour.

2. Monitors representing the USCG, EPA, federal trustee agencies, the affected state(s), OSHA, and the responsible party will have the opportunity to observe in-situ burning operations. Monitoring to establish "Continue/Discontinue" data for input to the OSC will be conducted in accordance with protocols established by the Region IV Regional Response Team as outlined in the monitoring program contained in appendix VI of the Region IV In-situ Burn Policy. Unless smoke plumes are predicted to cross over populated or environmentally sensitive areas, an inability to conduct monitoring operations will not be automatic grounds for discontinuing or prohibiting in-situ burn operations. All burns must incorporate visual monitoring at the burn site to record the disposition of burn residues and to monitor the burn site for potential impact to any natural resource in the area. Samples of the residue will be collected if feasible.

3. Prior to any in-situ burning operations, the OSC will apply the decision tree contained in appendix VI of the Region IV In-situ Burn Policy.

4. The application/checklist form in appendix VI of the Region IV In-situ Burn Policy shall be completed for all burns and provided to RRT IV members in a timely manner for documentation and informational.

5. The USCG will make every reasonable effort to continuously evaluate the decision to burn, and allow RRT agencies and affected state(s) the opportunity to comment. Formal request to discontinue a burn should be presented, in writing to the OSC for consideration.
6. Burning will be conducted in a way that allows for effective control of the burn, to the maximum extent feasible, including the ability to rapidly stop the burn if necessary. Contained and controlled burning is recognized as the preferred method of burning using fire-resistant boom. All practical efforts will be made to control and contain the burn and prevent accidental ignition of the source. Generally it is not recommended that the source or adjacent uncontained slicks be allowed to ignite during in-situ burning operations. Certain circumstances, however, may warrant consideration of carefully planned source ignition.

7. Mechanical recovery equipment shall be mobilized on-scene, when feasible, for backup and complimentary response capability. Provisions must be made for collection of burn residue following the burn(s).

8. In-situ burning will be conducted in accordance with any consultations approved by the USFWS and the NMFS, under Section 7 of the Endangered Species Act. Prior to beginning an in-situ burn, an on-site survey will be conducted to determine if any threatened or endangered species are present in the burn area or otherwise at risk from any burn operations, fire, or smoke. Appropriate natural resource specialists, knowledgeable with any special resource concern in the area and representing the resource trustee, will be consulted prior to conducting any in-situ burn. Measures will be taken to prevent risk of injury to any wildlife, especially endangered or threatened species.

Examples of potential protection measures may include: moving the location of the burn to an area where listed species are not present; temporary employment of hazing techniques, if effective; and physical removal of individuals of listed species only under the authority of the trustee agency.

9. In-situ burning is advised only when meteorological and sea conditions are operationally favorable for a successful burn. The OSC will give due consideration to the direction of the wind, and the possibility of the wind blowing precipitate over population centers or sensitive resources onshore. A safety margin of 45 degrees of arc on either side of predicted wind vectors should be considered for shifts in wind direction.

10. Any use of in-situ burning requires that the OSC, or a designated member of the OSC’s staff provide a post-incident report, within 45 days of in-situ burning operations. Recommendations for changes or modification to this policy should be presented in the report, if appropriate. This report will be presented at a Region IV RRT meeting, if requested by the RRT.

FIRE BOOM

Manufacturer of fire boom is: Minnesota Mining & Manufacturing, 3M Center Building 225-4N-07, ST Paul, MN 55144-1000. 3M does not maintain inventory in stock. As of September 1993, the only large stock available is 6000 feet held by the Cook Inlet Spill Response Cooperative. According to the coop’s general manager, Bill Stilling, they will allow the Coast Guard to take up to 2500 feet of fire boom. If not used in the water, boom is rental only. If used in the water, the Coast Guard buys it. A second stockpile has been identified: Amoco Production Division holds 1500 feet of 18 inch 3M fire boom at Houston, TX. Negotiations are underway to send 750 feet to Southampton, United Kingdom and 750 feet to Clean Caribbean Cooperative in FT Lauderdale, FL.

Another possible source of fire boom is American Marine, in Cape Canaveral, FL. This company has just arranged with 3M in 1994 to start building fire boom. Quantities that will be stockpiled and available for immediate use are unknown.

Additionally the following sources are also available:
Spill Prevention Response Incorporated (SPRI) has 6000 feet of fire boom inventory at Cook Inlet. Contact SPRI at (907) 776-5129.
Marine Spill Response Corporation (MSRC) has 4000 feet in inventory at various locations. MSRC can be contacted at (703) 326-5611.
Three sets of fire boom are required for maximum effectiveness. Each set will consist of 500 feet (ten 50 foot sections) of boom. The largest boom available has a float diameter of 18 inches, a skirt length of 24 inches and a linear weight of 15.3 pounds per inch. The maximum net weight of each set would be 7650 pounds. If available, the largest size boom is desired.

For emergency procurement of fire boom, contact the Cook Inlet Spill Response Cooperative. The fire boom is already palletized and they will deliver by truck to Kenai or Keniska Airport, the nearest airports capable of handling a C-130 aircraft. Request aircraft support through the appropriate channels.

Special considerations: Commanding Officer of the Pacific Strike Team is the Coast Guard's representative to the National Response Team for in situ burning. Request assistance through the NSF Coordination Center (252) 331-6000. Also contact Dave Adams of the District Readiness Assistance Team (DRAT) at (305) 536-6502.

OIL SPILL RESPONSE APPLICATION \ CHECKLIST: IN-SITU BURNING

The following checklist is provided as a summary of important information to be considered by the On-Scene Coordinator (OSC) in reviewing any request to conduct in-situ burning in response to offshore oil spills within the Region 4 Regional Response Team area. This information shall be provided prior to approval of in-situ burning in all zones that are not pre-authorized. The information must be recorded for information and documentation purposes for any offshore in-situ burn.

1. **SPILL DATA (To be completed by Responding Party and submitted to OSC)**

   A. Name of incident: 
      ______________________________________________________________

   B. Date and time of incident:  Month/Day/Year ________ Time ________

   C. Incident:  Grounding ____ Transfer Operations ____ Collision ____
                 Blowout ____ Pipeline Rupture ____ Explosion ____ Other ____

   D. Did spill source ignite? Yes _____ No _____
      Is source still burning? Yes _____ No _____

   E. Spill Location:  Latitude _______________ Longitude ______________

   F. Distance (in miles) and direction to nearest land: ________________

   G. Product(s) released: 
      ______________________________________________________________

   H. Product(s) easily emulsified? Yes _____ No _____
      Uncertain ____

   I. Product(s) already emulsified upon release? No ______
      Light emulsion (0-20%) ____ Moderate emulsion (21-50%) ____
      Heavy emulsion (>51%) ____ Unknown ____
J. Estimated volume(s) of product released: _____________ gals / bbls
   _____________ gals / bbls

K. Estimated volume(s) of product that could still be released:

   _____________ gals _____________ bbls
   _____________ gals _____________ bbls

L. Release status: Continuous _____ Estimated Rate _____________
   Intermittent _____ Estimated Rate _____________
   One time only ("batch" spill); flow now stopped ________

M. Estimated area of spill:

   Approx. Date/Time _____ Surface Area _____ Sq. Miles (Stat ___ Naut. ___)
   Approx. Date/Time _____ Surface Area _____ Sq. Miles (Stat ___ Naut. ___)
   Approx. Date/Time _____ Surface Area _____ Sq. Miles (Stat ___ Naut. ___)

2. WEATHER AND WATER CONDITIONS AT TIME & LOCATION OF
   SPILL (To be completed by responding party and submitted to FOSC)

A. Temperature:  Air _____ (deg. F)  Water _____ (deg. F)

B. Weather: Clear _____ Partly Cloudy _____ Heavy Overcast _____
   Rain _____ (heavy _____ moderate _____ light _____)
   Fog _____ (type & amount at spill source _____________)
   (type & amount at burn site ______________)

C. Tidal Condition: Slack Tide _____  Flood _____  Ebb _____

D. Dominant Surface Current (net drift):
   Speed ________ (knots)
   Direction (to) ________ (True compass heading)

E. Wind Speed: ________ knots  Wind Direction (from) ________

F. Expected transition time between on-shore & off-shore breeze

G. Sea State: Flat Calm _____  Light Wind-Chop _____
   Wind-Waves: <1 ft _____  1-3 ft _____  >3 ft _____
   Swell (est. height in ft) _____________
H. Water Depth (in feet): ______________________________________

I. Other Consideration:
   - General Visibility ___________________________________________
   - Rip Tides/Eddies ____________________________________________
   - Floating Debris ____________________________________________
   - Submerged Hazards ___________________________________________

Notes: See Section II Part I for weather and water conditions forecast (to be completed by NOAA Scientific Support Coordinator)

See Section III Part II for predicted oil behavior (to be completed by NOAA SSC)

Responding party has option of also submitting information on predicted oil behavior to OSC.

3. PROPOSED BURNING PLAN (To be completed by party responding to spill)

A. Location of proposed burn with respect to spill source:
   __________________________________________________________

B. Location of proposed burn with respect to nearest ignitable oil slick(s):
   __________________________________________________________

C. Location of proposed burn with respect to nearest land:
   __________________________________________________________

D. Location of proposed burn with respect to commercial fishing activity, vessel traffic lanes, drilling rigs and/or other marine activities/facilities:
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

E. Risk of accidental (secondary) fires:
   __________________________________________________________

F. Risk of reducing visibility at nearby airstrip(s) or airport(s):
   __________________________________________________________

G. Distance to, location and type of nearest population center(s) (e.g., recreational site, town, city, etc.):
H. Methods that will be used (prior to ignition) to notify residents in areas where smoke could conceivably drift into or over such areas:

I. Type of igniter proposed for use:

J. Helicopter(s) needed to deploy igniters? No _____ Yes _____

Name of company and type of helicopter to be used:

FAA approval already granted to company for use of igniter:
Yes _____ No _____

Awaiting FAA approval or verification of prior approval _____

K. Burning promoters or wicking agents proposed for use?
Yes _____ No _____
If yes, give type and amount: __________________________________

L. Describe proposed method of deployment for igniter(s):

Burning Promoter(s):

Wicking Agent(s):

M. Describe method for oil containment, if any:

N. Proposed location of oil containment relative to spill source:

O. Proposed burning strategy:

_____ Immediate ignition at or near source
_____ Ignition away from source after containment and movement to safe location
_____ Ignition of uncontained slick(s) at a safe distance
_____ Controlled burning in boom or natural collection site at/near shore
_____ Possible need for multiple ignition attempts

P. Estimated amount of oil to be burned:
Q. Estimated duration of each burn: _______________
Total possible burn period: _______________

R. Estimated smoke plume trajectory:

S. Method for collecting burned oil residue:

T. Proposed storage & disposal of burned oil residue:

4. WEATHER AND WATER CONDITION FORECAST FROM TIME OF SPILL (To be completed by NOAA SSC)

A. Wind Speed (knots):
24-hour projection: ___________________________
48-hour projection: ___________________________

B. Wind Direction (from):
24-hour projection: ___________________________
48-hour projection: ___________________________

C. Sea Condition:
24-hour projection:
Flat Calm _____ Light Wind-Chop _____
Wind-Waves: <1 ft _____ 1-3 ft _____ >3 ft _____
Swell (est. height in ft) ________

48-hour projection:
Flat Calm _____ Light Wind-Chop _____
Wind-Waves: <1 ft _____ 1-3 ft _____ >3 ft _____
Swell (est. height in ft) ________

D. Tidal Information:
Date ________ High (time/height) ________/_______
Low (time/height) ________/_______

Date ________ High (time/height) ________/_______
Low (time/height) ________/_______
<table>
<thead>
<tr>
<th>Date</th>
<th>High (time/height)</th>
<th>Low (time/height)</th>
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</table>

E. Predicted Dominant Current (net drift):

Speed (knots): _______________  Direction (to): _______________

5. **PREDICTED OIL BEHAVIOR** (To be completed by NOAA SSC)

A. Unburned Oil Forecast:

Estimated trajectory (attach sketch if necessary):

B. Expected area(s) and time(s) of land fall:

<table>
<thead>
<tr>
<th>Location</th>
<th>Date/Time</th>
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</tbody>
</table>

C. Estimated percent naturally dispersed and evaporated:

- Within first 12 hours: __________
- Within first 24 hours: __________
- Within first 48 hours: __________

6. **RESOURCES AT RISK** (To be completed by resource agencies)

A. Habitats

<table>
<thead>
<tr>
<th>Sheltered Tidal Flats</th>
<th>__________________________</th>
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<tbody>
<tr>
<td>Coastal Marshes</td>
<td>__________________________</td>
</tr>
<tr>
<td>Etc.</td>
<td>__________________________</td>
</tr>
</tbody>
</table>

B. Biological Resources

Are marine mammals, turtles, or concentrations of birds noted in the burn area?

- Yes _____  No _____

Endangered/Threatened Species
Non-Endangered/Threatened Species

C. Historic and Archaeological Resources
D. Commercial Harvest Areas

7. **ON-SCENE COORDINATOR’S EVALUATION OF RESPONSE OPTIONS (To be completed by OSC)**
   
   A. Is in-situ burning likely to result in the elimination of significant volumes of spilled oil?
      
      Yes _____  No _____
      
   B. Will the use of in-situ burning interfere with (or in any way reduce the effectiveness of) mechanical recovery and/or dispersant application?
      
      Yes _____  No _____
      
   C. Can in-situ burning be used safely, and with an anticipated overall reduction in environmental impact (compared with the decision not to burn)?

8. **ON-SCENE COORDINATOR’S DECISION REGARDING IN-SITU BURNING (To be completed by FOSC)**
   
   A. _____ Do not conduct in-situ burn
   
   B. _____ In-situ burn may be conducted in limited or selected areas
   
   C. _____ In-situ burn may be conducted as requested
   
   Note: If the OSC approves of in-situ burning, local media and residents in areas within the potential smoke plume trajectory must be notified prior to initiating the burn.

Signature of OSC: _____________________________________________

Printed Name of OSC: __________________________________________

Time and Date of Decision: _________________________________

Region IV Inland ISB Evaluation and Response Checklist

**STEP 1: Evaluating the Need for Burning**
Nature, Size, and Type of Product Spilled

A. Name of incident:

B. Date and time of incident:

C. Type of Incident:  
___ Grounding  
___ Transfer Operations  
___ Explosion  
___ Vehicle Accident  
___ Blowout  
___ Pipeline  
___ Other

D. Did source burn?  Yes ___ No ___  
Is source still burning? Yes___ No ___

E. Spill location:

F. Distance and direction to nearest human use areas:  ________________________________  
(i.e., schools, hospitals, recreation areas, surface water intakes, public wells, etc.)

G. Product(s) released:  
___ Heavy Crude  
___ Bunker C/#6 fuel oil  
___ Medium crude  
___ Diesel/#2 fuel oil  
___ Jet fuels/gasoline  
___ Other

H. Estimated volume of released product: _________  gals     _________  bbls

I. Estimated volume of product potentially released: __________  gals  __________  bbls

J. Release status: __________ Continuous ___________ Intermittent  
One time only, now stopped? Yes ___No ___  
If continuous or intermittent, specify rate of release:  
__________________  gals/bbls per hour

K. Estimated surface area covered ________________  acres/sqft
Weather: Current and Forecasted

A. Current Weather:  
   ___ Clear 
   ___ Partly Cloudy 
   ___ Overcast 
   ___ Rain/Snow/Fog 
   ___ Inversion 

24-hour projection: 

48-hour projection: 

B. Wind speed and direction are generally looked at three levels. Surface (measured at the site); 20 foot (these are usually the forecasted winds); and the transport winds. The transport winds determine where and how fast the smoke will go. These winds are generally given by the state forestry agency in the daily prescribed fire or smoke management forecast. Transport wind speed, direction and mixing height are critical components.

<table>
<thead>
<tr>
<th>Current Wind Speed (mph):</th>
<th>Surface</th>
<th>Forecasted</th>
<th>Transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direction (from):</td>
<td>______</td>
<td>______</td>
<td>______</td>
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<tr>
<td>24-hour projection (mph):</td>
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<td>Direction (from):</td>
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<tr>
<td>48-hour projection (mph):</td>
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<tr>
<td>Direction (from):</td>
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</table>

Evaluation of Response Operations

A. Considering spill size, forecasted weather and trajectories, amount of available equipment, is there time to deploy mechanical recovery equipment? Yes___ No ___

B. Considering spill size, forecasted weather and trajectories, amount of available equipment, is there time to conduct burning operations? Yes ___No ___

C. Why is in-situ burning necessary?(check all that apply)

   ___ To remove oil to prevent it’s spread to sensitive sites or over large areas.
   ___ To reduce the generation of oily wastes, especially where transportation or disposal options are limited.
   ___ Access to the site is limited by shallow water, soft substrates, thick vegetation, or the remoteness of the location.
   ___ Other removal methods have lost effectiveness or have become too intrusive.
   ___ Other (specify):
**STEP 2: Burning Feasibility Checklist**

**Weather and Oil Conditions**

A. Are weather conditions acceptable to conduct burn operations? Yes ___ No ___

B. Visibility: Sufficient to see oil, containment systems, and suitable for aerial overflight for burn observation?  
   Yes ___ No ___

C. Oil Condition:  
   1. Fresh oil, < 2-3 days exposure. Yes ___ No ___
   2. > 2-3 mm, (0.1 inch) thickness. Yes ___ No ___

**Habits Impacted and Resources at Risk**

A. Local public health official/agency notified and consulted? Yes ___ No ___
   
   Name:  
   Address:  
   Phone:

B. Land Owner/Manager (federal/tribal/state/private) notified and consulted? Yes ___ No ___
   
   Name:  
   Address:  
   Phone:

C. Local Fire Management Officer/Fire Ecologist/State Forestry Commission consulted? Yes ___ No ___
   
   Name/Agency:  
   Address:  
   Phone:

D. Historic Property Specialist pursuant to the Programmatic Agreement on Protection of Historic Properties  
   During Emergency Response contacted? Yes ___ No ___
   
   Name:  
   Address:  
   Phone:

E. State Natural Resource Agency notified and consulted? Yes ___ No ___
   
   Name/Agency:  
   Address:  
   Phone:
F. Federal Natural Resource Trustees notified and consulted

___ Department of the Interior
___ Tennessee Valley Authority
___ U.S. Forest Service
___ Department of Energy
___ Department of Defense
___ National Aeronautic and Space Administration
___ National Oceanic and Atmospheric Administration/Dept of Commerce
___ Other:

G. Native American interests present? Yes ___ No ___ Unknown ___

Tribal contact:

Name:
Address:
Phone:

Bureau of Indian Affairs contact:

Name:
Address:
Phone:

H. Surface water intakes and wells (public and private): Yes ___ No ___

I. Habitat Type(s) Impacted:

___ Southern cordgrass prairie
___ Palmetto prairie
___ Cypress savanna

Wetlands
___ Estuarine
___ Riverine
___ Lacustrine
___ Palustrine
___ Agricultural lands
___ Other (specify):

J. Seasonal concerns: Yes ___ No ___

Comments:
K. Biological Resources Present:
(Describe significant issues such as large concentrations, breeding activities, rookeries, designated critical habitat, etc.)

1. ____ Threatened and Endangered Species, including plants (list):
2. ____ Mammals
3. ____ Waterfowl
4. ____ Wading Birds
5. ____ Diving Birds
6. ____ Shore Birds
7. ____ Raptors
8. ____ Fish
9. ____ Reptiles
10. ____ Amphibians
11. ____ Other
12. ____ Comments/Attachments (i.e., ESI Maps)

L. Natural Areas (list)

1. ____ National Park:
2. ____ National Wildlife Refuge:
3. ____ National Forest:
4. ____ State Park:
5. ____ State Wildlife Area:
6. ____ Other Natural Areas:
7. ____ Comments

M. Historic, Cultural, and Archeological Resources

____ Unknown
____ Not Present
____ Present
Equipment & Personnel

A. Has the burn area been isolated (e.g., by fire breaks)? Yes ___ No ___
   Is there an approved site safety plan in place? Yes ___ No ___
   Have local fire and police departments been notified? Yes ___ No ___

B. Are the appropriate fire fighting gear and personnel on-scene?
   Yes ___ No ___

C. Is aircraft for ignition and aerial observation required? Yes ___ No ___
   If yes, are they available? Yes ___ No ___ (Flight requirements: daylight hours; visibility >1 mile; ceiling >500 feet, FAA certified for helitorch)

D. Ignition System:
   1. Available? Yes ___ No ___
   2. Type/method to be-used? ________________________________
   3. Burn Promoters? Yes ___ No ___

E. Personnel trained, equipped with safety gear, & covered by site safety plan? Yes ___ No ___

F. Communications System to communicate with aircraft and fire fighters available and working? Yes ___ No ___

G. Is access to the site restricted to response personnel only? Yes ___ No ___

Proposed Burn Plan

A. Proposed burning strategy (circle appropriate responses)
   1. Ignition away from source after containment
   2. Immediate ignition at or near source
   3. Ignition of uncontained slick(s) at a safe distance

B. Estimated amount of oil to be burned: surface area __________ sq ft
   volume __________ gal/bbl

C. Estimated duration of burn in minutes: ______________

D. Are simultaneous burns planned? Yes ___ No ___ If yes how many? ______________

E. Are sequential or repeat burns planned (not simultaneous)? Yes ___ No ___

F. Method for terminating the burn: ________________________________

G. Proposed method for ignition: ________________________________

H. Ability to collect burned oil residue: Yes ___ No ___

I. Estimated smoke plume trajectory (miles): ______________

J. Monitoring protocols contained in SMART will be applied as appropriate.
   Is additional monitoring required? Yes ___ No ___ If yes, attach
   additional monitoring needs and specify responsible agency.
STEP 3: Is Burning Acceptable?

Evaluation of Anticipated Emissions

A. Using an appropriate chart, plot and calculate the following locations and distances:

1. Location of proposed burn in reference to source.

2. If on water, location of proposed burn in reference to nearest ignitable oil slick.

3. Location of proposed burn in reference to nearby human habitation/use areas, (e.g. towns, recreational use areas, airports/stripes, roads, daycare centers, schools, hospitals, etc.).

B. Populations of special concern:

1. Schools ___
2. Hospitals ___
3. Retirement communities ___
4. Nursing/convalescence homes ___
5. Day care centers ___
6. Other ___

C. Determine the following:

1. Distance between proposed burn and spill source ____ (miles)
2. Distance between burn and human habitation/use area ____ (miles)
3. Surface area of the proposed burn or burns ____ sqft (approx.)
4. Will impairment of visibility affect airports and/or highways? Yes ___ No ___

D. Can burning be conducted in a controlled fashion? Yes ___ No ___
Explain measures to reduce and/or control secondary fires.

E. Using a distance of miles with the forecasted wind and transport wind direction, plot the estimated smoke plume with particulate concentration >150 ug/m3.

F. Are additional pollutants of concern present in the smoke plum? Yes ___ No ___ If yes, what are the projected concentrations to human habitation areas? Consultation with local air and health authorities may be necessary.

G. Will the anticipated smoke plume disperse before reaching populated areas? Yes ___ No ___
Determination of Acceptability

A. Does the estimated smoke plume potentially impact a populated area with particulate concentrations averaged over one hour exceeding 150 ug/m³? Yes ___ No ___

   If No, Burning is Acceptable, proceed to Step 4.

   If Yes, continue with B.

B. Can the impacted population be temporarily relocated prior to burn? Yes ___ No ___

   If Yes, initiate warning or evacuation and authorize burning AFTER population is protected, proceed to Step 4. If No, do NOT authorize burning!

STEP 4: Controls & Conditions

Operational Controls, Required for All Burns

A. Forecasted weather, winds and atmospheric stability class obtained? Yes ___ No ___

B. A trial burn may be necessary to observe and confirm anticipated smoke plume behavior. Trial burns must have RRT approval.

C. Safe downwind distance validated, or expanded if winds are inconsistent with anticipated forecast? Yes ___ No ___

D. Burn extinguishing measures in place and available? Yes ___ No ___

Public Notifications

Public notification (e.g. radio broadcast to public, safety zone broadcast to mariners, road closure, etc.) implemented? Yes ___ No ___
Unified Command Request to the RRT For In-situ Burning

Additional conditions that apply: Yes ___  (Attached)  No ____

_________________________________________________________
Signature of Federal On-Scene Coordinator  Printed Name

_________________________________________________________
Signature of State On-Scene Coordinator  Printed Name

Does Land Owner/Manager Concur?  Yes ____ No ____

_________________________________________________________
Signature of Land Owner/Manager  Printed Name

RRT Decision Regarding In-situ Burning

A. _____ Do not conduct in-situ burn
B. _____ In-situ burning may be conducted pursuant to attached conditions
C. _____ In-situ burning may be conducted as requested in Step #3

_________________________________________________________
Signature of EPA Co-Chair  Printed Name

_________________________________________________________
Signature of USCG Co-Chair  Printed Name

_________________________________________________________
Signature of DOI Representative  Printed Name

_________________________________________________________
Signature of Affected State(s)  Printed Name

_________________________________________________________
Signature of Other Federal Trustee(s)  Printed Name
1660 Fish and Wildlife Acts Compliance (Migratory Bird Act, Marine Mammal Act, Endangered Species Act, etc)

1660.1 Endangered Species Act: Memorandum of Agreement
Refer to the following website: http://uscg.mil/npc/docs/PDFs/urg/App/ESA_MOA_AppA_04.pdf

1660.2 Endangered Species Act Implementation Guidelines for Consultation Process (Draft)
Refer to RRT4 Guidance at the following website:

1670 Protection of Historic Properties
Refer to section 4630 of this plan.

1680 Alternative Response Technical Evaluation System (ARTES)
[RESERVED for development by the Commandant of the Coast Guard and the Commander, Seventh Coast Guard District].

1690 Specialized Monitoring of Advanced Response Technology (SMART)
[RESERVED for development by the Commandant of the Coast Guard and the Commander, Seventh Coast Guard District].
1700 NIMS and NRF Alignment Certification Checklist

Enclosure (1) to COMDTINST 16000.27

NIMS AND NRP ALIGNMENT CERTIFICATION CHECKLIST
(Local reproduction authorized)

Name of Plan: Area Contingency Plan  Date: 12SEP05

Plan Holder (Unit): Section Jacksonville

Ref: (a) National Incident Management System (NIMS), 1 March 2004
(b) National Response Plan (NRP), December 2004
(c) Alignment with the National Incident Management System and National Response Plan, COMDTINST 16600.27 series
(d) United States Coast Guard National Incident Management System (NIMS) and National Response Plan (NRP) Implementation Plan, 29 December 2004

1. The following actions have been taken to align this plan with references (a) and (b), consistent with the guidance provided by reference (c).  (Check boxes as appropriate.)

[  ] This plan prescribes the use of the Incident Command System (ICS) as per the National Incident Management System (NIMS), reference (a).

[  ] This plan meets the requirements of reference (a) or corrections have been made where practicable to address minor changes necessary for consistency with reference (a).

[  ] This plan meets the requirements of reference (a) or corrections have been made where practicable to address minor changes necessary for consistency with reference (b).

[  ] Supplemental pages listed as Attachments to this certification have been prepared and included as attachments to this certification to address NRP alignment issues beyond minor changes.

[  ] This plan is scheduled for a formal revision to be completed by 30SEP05 (insert required completion date) in accordance with reference (d).

2. When this plan is executed, it will supplement the overarching core coordinating structures, processes, and protocols detailed in the NRP.  Figure 1 of attachment (a) depicts the NRP coordinating structures specified by reference (a).  This figure is included in this revised plan.

Carol Swinson  (Name of person responsible for changes)
LTJG, USCG  (Title)

Attachments:
(a) - Structure for NRP Coordination
1710 Structure for NRF Coordination

The structure for NRF coordination is based on the NIMS construct of a multi-agency coordination entity, with roles and responsibilities defined at the federal, state, local, and tribal levels. The JFO (Joint Field Office) serves as the focal point for coordination of Federal support to state and local communities. As regional incidents may be coordinated by regional experts at the JFO, the state and local levels must ensure that resources are available and that critical information is disseminated.

At the local level, the Local Emergency Operations Center (EOC) is responsible for coordinating emergency response efforts within the community. It facilitates the allocation of resources and manages information flow between the EOC and other agencies and organizations.

The Incident Command System is a standard approach for managing incident response, ensuring that all organizations involved in an incident can work together efficiently. The Incident Command Post is the hub of this system, coordinating the efforts of all personnel involved in the response.

In summary, the structure for NRF coordination is designed to facilitate effective communication and coordination among various levels of government and agencies, ensuring that resources are efficiently allocated and that critical information is shared in a timely manner.

Figure 1: Coordinating structure from the National Response Plan
1800 Internet Security Technical Assistance Document

Coast Guard Headquarters, along with the National Response Team (NRT) and other federal agencies and industry, created the “Area Contingency Plan-Regional Contingency Plan Internet Security Technical Assistance Document” dated August 12, 2003. This document identified as Sensitive Security Information that must not be part of publicly-available ACPs. Therefore, some information is not available online, but might be available by contacting the Sector Jacksonville Contingency Planning and Readiness Department at (904) 564-7500.

1900 Reserved for Area/District
Northeast and Eastern Central Florida Area Contingency Plan

Annex 2000: Unified Command
**2000 Command**

Historically, the success or failure of an oil spill response effort is often determined as much by the organization in place as by the availability of personnel and clean up equipment. One of the purposes of this plan is to ensure that all appropriate agencies in Northeast and Eastern Central Florida are aware of, and involved in, the local “oil spill response organization.”

In this plan, the local oil spill response organization will be divided into two categories, planning and response. Both will be in place prior to an oil spill event and will be periodically exercised and/or evaluated.

In events sufficiently significant to involve agencies other than the Coast Guard, oil spill response in the Sector Jacksonville area will be based on the Unified Command System (figure 1). The Incident Management Handbook lists numerous key positions that should be filled during a “significant” response. To ensure the best possible response, it is essential that the most qualified individuals fill these positions. Who fills the positions depends on the particular incident; however, it is highly unlikely that they will all be from the Coast Guard or any other individual agency. It is highly possible that some of the key individuals may be employees of the responsible party. This is particularly true when cleanup by chemical means (e.g. use of dispersants) is being considered.

Refer to the Incident Management Handbook (IMH) for the Incident Command System prepared by USCG, Office of Response (G-MOR-3) for specific information on all duties and positions. Refer to Appendix 9700 for ICS forms and job aids.

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2100 Unified Command – Command Structure

The Unified Command Structure (UCS) provides an organization capable of anticipating and responding to pollution response emergencies.

The UCS is based on the Incident Command System (ICS) and is intended to provide a “common ground” to jointly coordinate command and control for a large number of response agencies. UCS is designed to bring together continuous decision making input from response groups at every level: City, County, State, Federal and the commercial community.

(Figure 1)

Each response agency and group is responsible to participate in UCS at the appropriate decision making level. The UCS is designed to develop proactive consensus building in anticipation of response requirements, making liaison and direct communication between key response decision makers an integral and continuous part of the emergency response process. Each agency retains its own organizational identity, chain of command and direct control of
personnel and resource tasking. See Figure 1. While a single IC normally handles the command function, an ICS organization may be expanded into a UC. As a component of an ICS, the UC is a structure that brings together the “Incident Commanders” of all major organizations involved in the incident to coordinate an effective response while at the same time carries out their own jurisdictional responsibilities. The UC links the organizations responding to the incident and provides a forum for these agencies to make consensus decisions. Under the UC, the various jurisdictions and/or agencies and non-government responders may blend together throughout the organization to create an integrated response team.

The UC may be used whenever multiple jurisdictions are involved in a response effort. These jurisdictions could be represented by:

- Geographic boundaries (e.g., two States, Indian Tribal Land);
- Governmental levels (e.g., Federal, State, Local);
- Functional responsibilities (e.g., fire, oil spill, EMS);
- Statutory responsibilities (e.g., Federal Land Managers, RP OPA90 or CERCLA); or
- Some combination of the above.

Unified Command make-up for a specific incident will be determined on a case-by-case basis taking into account:

1. the specifics of the incident;
2. determinations outlined in existing response plans; or
3. decisions reached during the initial meeting of the UC. The makeup of the UC may change as an incident progresses, in order to account for changes in the situation.

The UC is a team effort, but to be effective the number of personnel should be kept as small as possible. A well-defined process requires the UC to set clear objectives to guide the on-scene response resources.

The UC is responsible for overall management of the incident. The UC directs incident activities, including development and implementation of overall objectives and strategies, and approves ordering and releasing of resources. The UC is not a “decision by committee”. The principals are there to command the response to an incident. Time is of the essence. The UC should develop synergy based on the significant capabilities that are brought by the various representatives. There should be personal acknowledgement of each representative’s unique capabilities, a shared understanding of the situation, and agreement on the common objectives. With the different perspectives on the UC comes the risk of disagreements, most of which can be resolved through the understanding of the underlying issues. Contentious issues may arise, but the UC framework provides a forum and a process to resolve problems and find solutions.

A cooperative attitude and a thorough understanding are essential. So does a thorough understanding of the ICS IAP Cycle. Nevertheless, situations may arise where consensus agreement may not be reachable. In such instances, the UC member representing the agency with primary jurisdiction over the issue would normally be deferred to for the final decision.

The bottom line is that UC has certain responsibilities as noted above. Failure to provide clear objectives for the next operational period means that the Command function has failed. While the UC structure is an excellent vehicle (and the only nationally recognized vehicle) for coordination, cooperation, and communication, the duly authorized representatives must make the system work successfully. A strong Command--a single IC or UC--is essential to an effective response.

Each UC member may assign Deputy Incident Commander(s) to assist in carrying out IC responsibilities. UC members may also be assigned individual legal and administrative support from their own organizations.

**To be considered for inclusion as a UC representative, your organization must:**

- Have jurisdictional authority or functional responsibility under a law or ordinance for the incident; and,
- The incident or response operations must have impact on your organization’s AOR; and,

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**VERSION DATE:** V_2.0 01Jun14  
**CLASSIFICATION:** UNCLASSIFIED  
**CONTROLLING AUTHORITY:**  
**AREA COMMITTEE:**  
**ISSUING AUTHORITY:** T.G. ALLAN, JR.  
**CAPT PAGE:** 2000-4
• Your organization must be specifically charged with commanding, coordinating or managing a major aspect of the response; and,
• Your organization must have the resources to support participation in the response organization.

UC representatives must be able to:
• Agree on common incident objectives and priorities;
• Have the capability to sustain a 24-hour-7-day-a-week commitment to the incident;
• Have the authority to commit agency or company resources to the incident;
• Have the authority to spend agency or company funds;
• Agree on an incident response organization;
• Agree on the appropriate Command and General Staff position assignments to ensure clear direction for on-scene tactical resources;
• Commit to speak with “one voice” through the IO or JIC, if established;
• Agree on logistical support procedures; and
• Agree on cost-sharing procedures, as appropriate.

It is important to note that participation in a UC occurs without any agency abdicating authority, responsibility, or accountability.

What if your agency is not a part of the Unified Command? Here is how to ensure your organization’s concerns or issues are addressed:
• Serve as an agency or company representative.
• Provide input to your agency or company representative, who has direct contact with the LO.
• Provide stakeholder input to the LO (for environmental, economic, or political issues).
• Serve as a Technical Specialist in the Planning Section (reassigned, as appropriate).
• Provide input to a UC member.

2110 Federal Representative
The NCP, 40 CFR 300, requires Federal On-Scene Coordinators (FOSCs) to direct response efforts and coordinate all other actions at the scene of a spill or release. The FOSC is the pre-designated Federal official responsible for ensuring immediate and effective response to a discharge or threatened discharge of oil or a hazardous substance. The U.S. Coast Guard designates FOSCs for U.S. coastal zones, while the U.S. EPA designates FOSCs for U.S. inland zones. The first federal official affiliated with an NRT member agency to arrive at the scene of a discharge should coordinate activities under the NCP and is authorized to initiate, in consultation with the FOSC, any necessary actions normally carried out by the FOSC until the arrival of the pre-designated FOSC. This official may initiate federal Fund-financed actions only as authorized by the FOSC.

The FOSC shall, to the extent practicable, and as soon as possible after the incident occurs, collect pertinent facts about the discharge, such as its source and cause. Identify responsible parties, the nature, amount, and location of discharged materials along with predicting the trajectory of discharged materials. Then determine whether the discharge is a worst case discharge, the pathways to human and environmental exposure, the potential impact on human health, welfare, safety and the environment and whether the discharge poses a substantial threat to the public health or welfare. Next, the FOSC shall identify the potential impact on natural resources and property, and discuss priorities for protecting human health, welfare and the environment. Lastly, they must ensure appropriate resource documentation.

The FOSC shall ensure that the trustees for natural resources are promptly notified of discharges. The FOSC shall coordinate all response activities with the affected natural resource trustees and shall consult with the affected
trustees on the appropriate removal action to be taken. When the FOSC becomes aware that a discharge may affect any endangered or threatened species, or their habitat, the FOSC shall consult with the appropriate Natural Resource Trustee.

The FOSC’s efforts shall be coordinated with other appropriate federal, state, local, and private response agencies. An OSC may designate capable individuals from Federal, State, or local agencies to act as her/his on-scene representatives. State and local governments, however, are not authorized to take actions under Subpart D of the National Contingency Plan (NCP) that involve expenditures of the Oil Spill Liability Trust Fund (OSLTF) unless a Pollution Removal Funding Authorization (PFRA) has been completed between the FOSC and local government representative.

The FOSC should consult with the Regional Response Team (RRT), when necessary, in carrying out the requirements of the NCP and keep the RRT informed of activities under the NCP.

Instances where a public health emergency exists, the FOSC should notify the Health and Human Services (HHS) representative to the RRT. Throughout response actions, the OSC may call upon the HHS representative for assistance in determining public health threats and call upon the Occupational Safety and Health Administration (OSHA) and HHS for advice on worker health and safety problems.

The FOSC must ensure National Resource Trustees are promptly notified of discharges. The OSC must coordinate all response activities with the affected Natural Resource Trustees and must consult with the affected trustees on the appropriate removal action to be taken. When the OSC becomes aware that a discharge may affect endangered or threatened species, or their habitat, the OSC must consult with the appropriate Natural Resource Trustee.

The FOSC will submit pollution reports to the RRT and other appropriate agencies as significant developments occur during response actions, through communication networks or procedures agreed to by the RRT and covered in the RCP.

The FOSC should ensure that all appropriate public and private interests are kept informed and that their concerns are considered throughout a response, to the extent practicable.

2120 State Representative

The State Incident Commander is responsible to ensure all pertinent resource, cultural, archaeological, environmental and economic issues are discussed and decisions within the UC are based on sound state-specific information. This individual must be able to make decisions with minimal internal agency consultation.

2130 Responsible Party (RP) Representative

Under OPA 90, the responsible party has primary responsibility for cleanup of a discharge. The response shall be conducted in accordance with their applicable response plan. Section 4201(a) of OPA 90 states that an owner or operator of a tank vessel or facility participating in removal efforts shall act in accordance with the NCP and the applicable response plans as required. Section 4202 of OPA 90 states that these response plans shall be consistent with the requirements of the NCP and ACPs. Each owner or operator of a tank vessel or facility required by OPA 90 to submit a response plan shall, do so in accordance with applicable regulations. Facility and tank vessel response plan regulations, including plan requirements, are located in 33 CFR Parts 154 and 155, respectively.

As defined by OPA 90, each responsible party of 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 or adjoining shorelines or the Exclusive
Economic Zone is liable for the removal costs and damages specified in Subsection (b) of Section 1002 of OPA 90. Any removal activity undertaken by a responsible party must be consistent with the provisions of the NCP, the Regional Contingency Plan (RCP), the ACP, and the applicable response plan required by OPA 90. Each responsible party for a vessel or facility from which a hazardous substance is released, or which poses a substantial threat of a discharge, is liable for removal costs as specified in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (42 U.S.C. 9601 et seq.).

For informational purposes only: There is a possibility of a spill originating in foreign waters that would not have a Responsible Party (RP). In such a scenario, the spill would likely be federalized and the normal procedures for a federalized spill would be implemented by the NPFC. Additional planning work regarding a federalized spill resulting from a foreign offshore platform is ongoing at CGHQ’s.

2140 Unified Command Objectives

Typical operational objectives for the first operational period include (in no particular order):

- Confirm the existence and extent of the spill/release.
- Secure the source of the spill.
- Evaluate the extent of contamination.
- Assemble agency unified operations group on-scene.
- Confirm/execute all notifications to concerned local, county, state, and federal agencies.
- Assess the need to mobilize additional contract response resources (it is generally better to mobilize early (then release if the asset is not needed) rather than delay for fear of over-reaction.
- Establish a defined response organization.
- Examine key response financial issues (see Annex 6000 of this plan).

Typical operational objectives for the second operational period include (in no particular order):

- Fully evaluate/reconnaissance the extent of contamination.
- Implement the unified command organization and verify operations are being conducted in conformity with the National Incident Management System/Incident Command System.
- Begin relocation of Incident Command functions from on-scene unified operations group operations center to off-site/suitable Unified Command Post.
- Conduct Incident Planning cycle, including initial response strategies and objectives.
- Define/confirm media relations approach.
- Liaison Officer: initiate contact with local municipalities and establish communication channels.
- Safety Officer: develop, train on, and deploy initial site-specific safety and health plan by coordinating with contractor and government safety plans.
- Information Officer: prepare first press release, establish Joint Information Center, and organize first media briefing.

Typical operational objectives for the Third operational period include (in no particular order):

- Transition from immediate operations driven response posture to a pre-planned operations response posture. By 48 hour mark, establish a good understanding of the extent of the spill/release and overall objectives throughout response organization.
- Conduct routine situation briefings.
- Conduct daily objectives, tactics, and planning meetings in accordance with established response meeting schedule.
- Deliver fully developed daily incident action plans.
2150 Command Staff Elements

The USCG Incident Management Handbook details the UCS organization. The Unified Command of the response organization and each of the Sections Chiefs for Planning, Operations, Logistics, and Finance are tasked with proactively evaluating organizational requirements and implementing changes to the UCS organization in anticipation of the requirements of specific response conditions.

The Command Staff (figure 3) is made up of the following five functional areas:

1. Command Level: Unified Command and Command Staff;
2. Planning Section;
3. Operations Section;
4. Logistics Section;
5. Finance Section.

2200 Command/Command Staff

The Unified Command for an oil discharge in the marine environment includes:

1) OSC – the pre-designated Federal On Scene Coordinator;
2) Qualified Individual or Incident Commander representing the Responsible Party; and
3) The pre-designated SOSC representing State and local response agencies.

The responsibilities of the Unified Command include:

1) Mobilize, implement and manage the UCS organization needed to accomplish response objectives.
2) Assess incident priorities.
3) Determine strategic goals and tactical objectives.
4) Develop or approve the Incident Action Plan and ensure each agency implements and accomplishes those actions for which they are responsible.
5) Approve access to the Oil Spill Liability Trust Fund (OSLTF) and set response funding ceilings.
6) Anticipate response needs and authorize the ordering, deploying, and demobilization of response resources.
7) Serve as the ultimate safety authority, approve the Site Safety Plan, and ensure the maximum achievable level of worker health and safety for all responders.
8) Authorize information releases to the media and participate in scheduled press conferences.

The Command Staff includes:

A. Deputy OSC;
B. Safety Staff;
C. Liaison Staff;
D. Public Affairs Staff;
E. Investigations Staff;
F. Information Management Staff;
G. Legal Staff.

2210 Deputy FOSC
The responsibilities of the Deputy FOSC include:
1) Monitor and direct the Command Staff and the Section Chiefs to accomplish the strategic goals and tactical strategies defined in the Incident Action Plan.
2) Serve as the OSC, in the absence of the OSC.
3) Identify and establish priorities related to the internal management and organizational structure of the UCS.

2220 Safety Officer
The responsibilities of the Safety Officer and his or her assistant and safety observers include:
1) Identify and evaluate safety and health hazards that may impact both response workers and the public, designate exclusion zone boundaries, and determine levels of personal protective equipment required.
2) Write and update the Site Safety Plan using the templates.
3) Implement and manage the Safety Staff needed to continuously monitor and evaluate safety and health conditions and to prevent unsafe conditions.
4) Insure that all responders have adequate skills to safely perform assigned tasks and that required levels of training are documented.
5) Provide or coordinate health and safety training and regular safety briefings required to perform response activities.
6) Coordinate with public, government, and industry health and safety officials regarding public health concerns, including evacuations, limiting access to public areas, beach closures, and fisheries restrictions.
7) Resolve and identify to the Unified Command significant safety and health issues.

2230 Liaison Officer
The responsibilities of the Liaison Officer and his or her assistants include:
1) Serve as the initial point of contact for participating response agencies and groups and identify assignments to appropriate UCS sections.
2) Receive and coordinate all calls from public and private entities offering assistance or requesting information.
3) Resolve and identify to the Unified Command public and private concerns related to the status and effectiveness of the response.
2240 Public Affairs Officer

The Information Officer is responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations.

Only one Information Officer will be assigned for each incident, including incidents operating under UC and multi-jurisdictional incidents. The Information Officer may have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions. The responsibilities of the Public Affairs Officer and his or her assistants include:

1) Serve as the central clearing point for the dissemination of official information representing the UCS to the media.
2) Implement and manage the Joint Information Center (JIC) as the central location for disseminating official information.
3) Schedule, organize, and conduct UC media briefings, interviews, and tours.
4) Develop presentation documentation such as charts, maps and graphics to support both response operation and media briefings.
5) Resolve conflicting information and identify media concerns to the Unified Command.
6) Implement and manage the Public Affairs Staff needed to proactively accomplish Public Affairs tasking.

Public Information Assist Team (PIAT) members routinely give training in risk communications and ICS-based joint information center operations to response community personnel from the Coast Guard, other federal agencies, state and local agencies and industry. Most PIAT training events are associated with government- and industry-led response exercises. Of those events, many are in support of the Preparedness for Response Exercise Program. However, in just the past few years PIAT members have trained hundreds of people in the response community at other types of exercises or stand-alone training events. During the planning and design phases of exercises, PIAT members may assist with scenario development. PIAT members train exercise participants and then, during the exercises, act as coaches, controllers, evaluators or assist the exercise simulation cell members. The PIAT will offer Area Contingency Plan review for public information management and customized communication plan development for Sector public affairs programs.

2250 Investigation Staff

The responsibilities of the Investigation Staff include:

1) Identify and document the source of a discharge and the responsible party.
2) Secure statements, physical evidence, and samples necessary to establish the cause of a discharge, identify the responsible party.
3) Gather other information that may be required from the scene of an incident that may be required by the UC, including:
   (a) the quantity of the discharge;
   (b) the status of vessels, facilities, or personnel involved in the incident; and
   (c) evidence of impact, damage or loss.
4) Coordinate concurrent investigations and conduct cooperative investigations where appropriate.
5) Manage the availability of evidence that may be required by separate or divergent investigation.
6) Inform the Unified Command of the status of investigations.

7) Implement and manage the Investigation Staff needed to proactively accomplish investigation tasking.

## 2260 Information Management Staff

The responsibilities of the Information Management Staff include:

1) Implement and manage the Information Management Staff needed to facilitate the availability of response information in the UC.

2) Coordinate information management system within the UCS to ensure the proper routing and availability of response information.

3) Coordinate standard information display systems, status boards, summary forms, and other methods to effectively manage response information.

## 2270 Legal Staff

The responsibilities of the Legal Staff include providing legal advice to the Unified Command in support of response decision-making. Consult with District Legal on any local legal issues/concerns regarding oil affecting U.S. from foreign source.

## 2300 Health and Safety

Coast Guard employees, other government employees, and contract personnel involved in oil spill response activities must comply with all applicable worker health and safety laws and regulations. The primary federal regulations are the Occupational Safety and Health Administrations (OSHA) standards for hazardous waste operations and emergency response found in 29 CFR 1910.120. This rule regulates the safety and health of employees involved in cleanup 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 Releases Recovery Act of 1976 (RCRA). The regulations also apply to both emergency response and post-emergency cleanup of hazardous substances. The definition of hazardous substance used in these regulations is much broader than CERCLA, encompassing all CERCLA hazardous substances, RCRA hazardous waste, and all DOT hazardous materials listed in 49 CFR Part 172. Thus, most oil and oil spill responses are covered by these regulations. The rules cover employee protection during initial site characterization analysis, monitoring activities, materials handling activities, training, and emergency response.

OSHA classifies an area impacted by oil as an uncontrolled hazardous waste site. However, the regulations do not automatically apply to an oil spill cleanup. There must be an operation that involves employee exposure or the reasonable possibility for employee exposure to safety or health hazards. A typical beach cleanup worker collecting tar balls of weathered oil or deploying sorbents to collect sheen may not be exposed to a safety or health risk. The role of the site safety and health supervisor (the Coast Guard District Occupational Health and Safety Coordinator could fill this position) is to assess the site, determine the safety and health hazards present, and determine if OSHA regulations apply. If an OSHA field compliance officer is on-scene, he or she should be consulted to determine the applicability of OSHA regulations. Disputes should be referred to the Department of Labor representative on the RRT. The individual making the site characterization should communicate the hazards associated with the spill, and provide recommendations for the protections of workers’ safety and health through a site safety plan. The responsibility for the health and safety of personnel supporting a pollution response mission rests with the On Scene Coordinator.
For oil spill responses where OSHA regulations apply, the OSC must ensure that paragraphs (b) through (o) of 29 CFR 1910.120 are followed. Of most concern are the training requirements for CG personnel. Coast Guard personnel assigned to an MSO and routinely involved in pollution response should complete a 40 hour course meeting OSHA training requirements in paragraph (e) of 29 CFR 1910.120. Training records should reflect that OSHA requirements have been satisfied. Contractors are responsible for certifying the training of their employees. OSHA has recognized the need to remove oil from the environment and has empowered the OSHA representative to the RRT to reduce the training requirement to a minimum of 4 hours for responder engaged in post emergency response operations. An example of a post emergency response effort is shoreline cleanup operations. The reduced training applies to all Coast Guard personnel and to the private sector. This information may be found in OSHA Instruction CPL 2-2.51. The level of training required depends on the potential for exposure. Workers required to use respirators must have 40 hours of off-site training. The OSHA field compliance officer should be contacted to ascertain the worker training requirements and develop an implementation plan to minimize the hazards of exposure to workers involved in cleanup operations. Training requirements may vary from State to State. State requirements that are more restrictive will preempt Federal requirements. The OSC should establish contact with the State OSHA representative, where applicable, to determine the State training requirement for oil spill response.

The Safety Officer is responsible for monitoring and assessing hazardous and unsafe situations, and developing measures for assuring personnel safety. The Safety Officer will correct unsafe acts or conditions through the established line of authority, although the Safety Officer may exercise emergency authority to stop or prevent unsafe acts when immediate action is required. The Safety Officer maintains awareness of active and developing situations, ensures the preparation and implementation of the Site Safety Plan and all safety messages with the IAP. Refer to templates for additional information and an IAP template.

2310 Site Characterization
[RESERVED FOR AREA COMMITTEE DEVELOPMENT]

2320 Site Safety Plan
At a minimum, the plan should include health and safety hazard analysis for each site, task or operation with a comprehensive operations work plan. It should address personnel training requirements, personal protective equipment selection criteria and confined space entry procedures. In addition, it should detail an air monitoring plan, site control measures, and the format for pre-entry and pre-operations briefings. Refer to Appendix 9310 for information necessary to develop a site safety plan and for an ICS compatible template.

2330 Operational Risk Management (ORM)
[RESERVED FOR AREA COMMITTEE DEVELOPMENT]
2400 Information

The Information Officer is responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations. Only one Information Officer will be assigned for each incident, including incidents operating under Unified Command. The Information Officer may have assistants as necessary with the assistants representing assisting agencies and jurisdictions.

2410 Protocol for Access / Timing of Media Briefings

Media briefing this meeting is normally conducted at the Joint Information Center (JIC). Its purpose is to brief the media and the public on the most current and accurate facts. It is set up by the PIO, moderated by a UC spokesperson, and features selected spokespersons. Spokespersons should be prepared by the PIO to address anticipated issues. The briefing should be well-planned, organized, and scheduled to meet media’s needs.

The lessons learned from the Deepwater Horizon Response and Cosco-Busan Oil Spill demonstrated that in a response of this magnitude, public interest and scrutiny will be intense, and the demand for timely and accurate information will be of the utmost importance. Media training is critical to all who will speak to the media on behalf of the Unified Command. Until formal Public Affairs Guidance is promulgated by the Unified Area Command of an incident, the Northeast and Eastern Central Florida Area Committee must be adequately prepared to respond to immediate and continuous requests for information from the media and public.

A Joint Information Center should be established as soon as possible with representatives from each member agency of the Unified Command to coordinate the public affairs activities of all participating agencies. The Coast Guard, in its role as the Federal On scene Coordinator, should provide the Public Information Officer for the response.

2420 Joint Information Center (JIC)

During a major oil spill when media activity is expected to last several days, the lead Information Officer (IO) should establish a Joint Information Center (JIC) to coordinate the Public Affairs activities of participating agencies and parties. The role of the JIC is to provide multiple phone lines for incoming calls, staffed by knowledgeable individuals; and ensure State and Federal Government Public Affairs Officers (PAOs) are available to the media. In addition the JIC develops joint news releases under the UC, and schedules, organizes, and facilitates news conferences.

It is recommended that the JIC be in the same building as the Command Center, but in a room separate from other sections. PAOs need to be close to the UC and other sections for effective communication, but not so close as to disturb response operations. Equipment needs for the JIC vary, dependent on the size and impact of the incident, and media and public interest levels. If possible, a separate “Press Room” should be established for reporters’ use, at spills that attract a great deal of media interest. This room may be used by reporters covering the story, and would ideally be equipped with several phone lines, electrical outlets, and a couple of desks, tables and chairs. There should be a way to display maps, status boards, and other visual aids that could be used on-camera, and a table near the door for the latest news releases, fact sheets, and advisories. If there is room for seating and a podium with PA system, the press room is a good site for all formal news conferences. This allows TV news crews to set-up cameras in advance, and reporters to do stand-ups and call-ins from an easy, central location.

The NRT JIC Model documents a plan for conducting public information operations during emergency responses and other situations in which multiple organizations need to collaborate to provide timely, useful and accurate information to the public and other stakeholders. The primary focus of the model is to provide the PIO with a JIC structure that works within the framework of the National Incident Management System (NIMS) ICS. However, because it is functionally based, the model can be used during any situation in which there is a need for centralized
communications support involving multiple organizations. The NRT JIC Model was designed based on requirements identified by the NRT and was developed using a collaborative process through the NRT Response Committee’s JIC Model Workgroup. The model is primarily intended for use at the Incident Command Post (ICP) level by PIOs and JIC members working under an Incident Commander (IC)/Unified Command (UC) structure.

The complete JIC Model can be found at the website below:


For additional information concerning JIC reference appendix 7214 Public Affairs/Joint Information Center.

**2430 Media Contacts**

See Appendix 9260 for a detailed list of media contacts.

**2500 Liaison**

The Liaison Officer is the point of contact for personnel from assisting and cooperating agencies. The Liaison Officer will proactively coordinate with state and local government officials, keeping them advised of the situation and anticipated actions and listening to their concerns. Refer to Appendix 9200 Personnel and Services Directory for a list of federal, state and local trustees, agency representatives and environmental, economic and political stakeholders.

**2510 Investigators**

While many if not all spills and releases are marine casualties over which the Coast Guard has jurisdiction under Title 46 Code of Federal Regulations part 4, the National Transportation Safety Board (NTSB) often investigates accidents resulting in large oil or hazardous substance discharges. Accordingly, relationships between investigators will be governed by the Memorandum of Understanding between the Coast Guard and the NTSB, as well as side-bar agreements on investigation between state and local investigators. The FOSC will normally group the investigation as a separate entity from the response through the Liaison Officer. The Liaison will normally appoint an assistant solely to handle the investigators during a large response or complex investigation; this assistant should immediately contact the Coast Guard’s Office of Investigation and Analysis in Washington DC through the Coast Guard chain of command to discuss the details of the investigation/response relationship in the particular case at hand.

**2520 Federal/State/Local Trustees**

**2520.1 Identification of Lead Administrative Trustee (LAT)**

The Natural Resource Trustee will notify the U.S. Coast Guard of the LAT as soon as possible after an oil spill. As required by E.O. 12777 (October 22, 1991), the Federal Natural Resource Trustee must select a LAT. Depending on the resources at risk and other relative factors, it might be appropriate for the LAT to be a non-federal agency. In such cases, the Federal Natural Resource Trustees would still select a Federal LAT for the purpose of coordination with the representatives of the Oil Spill Liability Trust Fund (OSLTF) to initiate the damage assessment. The non-federal LAT will coordinate all other damage assessment activities.
The Natural Resource Trustees intend to execute a general Memorandum of Agreement (MOA) to coordinate damage assessment and restoration activities. Among other things, the MOA will identify trustees, establish criteria for selecting a LAT, and provide procedures for decision making and handling monetary recovery efforts.

2520.2 Trustee Funding

2520.2.1 Contacts with Responsible Party (RP)

The RP should be the primary funding source for the Natural Resource Damage Assessment (NRDA). The trustees will need early access to representatives of the RP to determine the availability of funding, personnel, and equipment for damage assessment activities. The LAT will first notify the appropriate U.S. Coast Guard representative and request that a meeting be arranged between the Natural Resource Trustees and the RP's representative. Should the U.S. Coast Guard fail to arrange a meeting in a timely fashion, the Natural Resource Trustees will establish contact directly with the RP's representative. When the RP is unknown, contacting the RP is not feasible, or the RP is unwilling or unable to provide funds, the LAT may request funding from the OSLTF.

2520.2.2 Lead Administrative Trustee (LAT) Access to the Oil Spill Liability Trust Fund (OSLTF)

The Federal LAT must submit a request for initiation of a NRDA to the National Pollution Fund Center (NPFC) to secure a funding obligation following an oil spill. The request must include: the amount requested, the plan for fund use, an estimated completion date, an agreement for subrogation of all cost recovery actions, an agreement to comply with NPFC documentation requirements, and a certification of lead trustee status. Based on the request for initiation, an Interagency Agreement (IAG) will be executed for each OPA incident, establishing the amount of funds authorized for initiation. The NPFC will assign a document control number to track costs.

The Federal LAT is responsible for documenting expenditures and submitting the documentation to the NPFC. In order for the trustee agencies to be funded for their activities all operations must be conducted in compliance with the procedures set forth by the NPFC in the Technical Operating Procedures (TOPS) for Resource Documentation Guidelines for Natural Resource Trustees.

The Federal LAT is expected to manage the funds available for initiation of NRDA. Whenever it appears that actual costs may exceed the amount of the IAG, the LAT should promptly request supplemental funding in the same manner as the original request. Until the IAG is amended to reflect supplemental funding, the LAT must take action to prevent exceeding the obligated amount.

2530 Agency Representatives

For incidents involving multiple jurisdictions, an agency or jurisdiction will send a representative to assist with coordination efforts.

An Agency Representative is the individual assigned to an incident from an assisting or cooperating agency, who has been delegated authority to make decisions on matters affecting that agency's participation at the incident. Agency Representatives report to the Liaison Officer or to the Incident Commander in the absence of the Liaison Officer.
2540 Stakeholders

2540.1 Environmental

See Tidal Inlet Protection Strategies.

2540.1.1 Natural Resource Damage Assessment (NRDA) Representative

The NRDA Representative is responsible for coordinating NRDA needs and activities of the trustee team within the ICS spill response operations. This includes close coordination with the Liaison Officer for obtaining timely information on the spill and injuries to natural resources. The representative will coordinate NRDA or injury determination activities.

2540.2 Economic

[RESERVED FOR AREA COMMITTEE DEVELOPMENT]

2540.3 Political

The Information Officer is responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations.

Only one Information Officer will be assigned for each incident, including incidents operating under UC and multi-jurisdictional incidents. The Information Officer may have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions. The responsibilities of the Public Affairs Officer and his or her assistants include:

1) Serve as the central clearing point for the dissemination of official information representing the UCS to the media.
2) Implement and manage the Joint Information Center (JIC) as the central location for disseminating official information.
3) Schedule, organize, and conduct UC media briefings, interviews, and tours.
4) Develop presentation documentation such as charts, maps and graphics to support both response operation and media briefings.
5) Resolve conflicting information and identify media concerns to the Unified Command.
6) Implement and manage the Public Affairs Staff needed to proactively accomplish Public Affairs tasking.
Public Information Assist Team (PIAT) members routinely give training in risk communications and ICS-based joint information center operations to response community personnel from the Coast Guard, other federal agencies, state and local agencies and industry. Most PIAT training events are associated with government- and industry-led response exercises. Of those events, many are in support of the Preparedness for Response Exercise Program. However, in just the past few years PIAT members have trained hundreds of people in the response community at other types of exercises or stand-alone training events. During the planning and design phases of exercises, PIAT members may assist with scenario development. PIAT members train exercise participants and then, during the exercises, act as coaches, controllers, evaluators or assist the exercise simulation cell members. The PIAT will offer Area Contingency Plan review for public information management and customized communication plan development for Sector public affairs programs.

**2600 Regional Incident Command / National Incident Command**

In situations where there is a need for senior executive-level response coordination, command and control of an incident may include the use of a Regional or National Incident Command (RIC/NIC). The purpose of a RIC/NIC organization is to oversee the overall management of the incident(s), focusing primarily on strategic assistance and direction and resolving competition for critical response resources. This organization does not supplant the IC(s), but supports and provides strategic direction. Execution of tactical operations and coordination remains the responsibility of the IC(s)/UC(s).

**Regional Incident Command** - A RIC is an organization activated by the District Commander to ensure coordination for Command, Planning, and Logistical matters. The need for a RIC may arise when there are multiple on-scene ICs, multiple Coast Guard ICs and/or when there is heavy demand for Coast Guard resources from other agencies such as the Federal Emergency Management Agency (FEMA). The RIC will determine which critical resources are sent to competing incidents and determine priorities for their assignment.

**National Incident Command** - A NIC is an organization that is functionally similar to the RIC and is used if the incident requires the direct involvement of the most senior Coast Guard Operational Commander(s).

**2610 Determination to Activate a Regional or National Incident Command**

A District Commander, Area Commander, or the Commandant can determine when an incident(s) is of such magnitude, complexity, or operational intensity that it would benefit from the activation of a RIC/NIC. Factors to consider when deciding to activate a RIC or NIC include, but are not limited to;

- Complex incident overwhelming local and regional Coast Guard assets;
- Overlapping Coast Guard districts;
- An incident that crosses international borders;
- The existence of, or the potential for, a high level of national political and media interest; or,
- Significant threat or impact to the public health and welfare, natural environment, property, or economy over a broad geographic area.

When the decision is made to activate a RIC/NIC, the following actions should occur:
• The District Commander will activate a RIC or, the Area Commander or the Commandant may designate a NIC.
• A deputy RIC/NIC will be designated with clear succession of command authority.
• If an incident(s) is multi-jurisdictional, the RIC/NIC shall establish a Regional or National UC. Regional or National UC representatives will typically consist of executives possessing the highest level of response authority as possible. For efficiency of decision-making within the UC, the RIC/NIC shall determine the proper make-up and number of representatives.

Note: There may be incidents where it is beneficial to activate a RIC or NIC, but the Coast Guard is not the lead response agency. In these cases, the RIC/NIC will coordinate with the lead agency’s response organization and, if agreed upon, form a UC.

2620 Responsibilities of the RIC/NIC

When the Coast Guard is the lead federal agency with primary response authority, the RIC/NIC will have responsibility for overall strategic management of the incident and will:
• Set the overall incident objectives;
• Establish overall incident priorities;
• Allocate critical resources based on overall incident priorities;
• Ensure that the incident is properly managed;
• Ensure that the on-scene incident objectives are met and shall provide support to minimize conflict with supporting agency’s priorities;
• Communicate, at the commensurate level, with affected parties, stakeholders, and the public; and
• Coordinate acquisition of off-incident, unassigned resources. This could include federal, state, local, and international resources as appropriate. This coordination may involve other federal agencies and the Governor(s) of the affected state(s).

When the Coast Guard is an assisting agency operating under the National Response Framework (NRF), the RIC/NIC will have the responsibility for overall strategic management of Coast Guard assets in support of the Primary Federal Officer (PFO). In this case, the RIC/NIC will:
• Balance and allocate critical resources based on FEMA set priorities;
• Ensure that the Coast Guard’s participation and support is properly managed;
• Ensure that PFO objectives are met with minimal disruption to Coast Guard statutory responsibilities;
• In concert with the PFO and the Regional Emergency Transportation Coordinator (RETCO), communicate with affected parties, stakeholders, and the public; and
• Facilitate the coordination and support of local and state resources, as appropriate.

The RIC/NIC organization should always be kept as small as possible. The minimum organization will consist of the Regional/National Incident Commander and a deputy. As necessary, these positions should be staffed:
• Assistant RIC/NIC, Logistics
• Assistant RIC/NIC, Planning
• Assistant RIC/NIC, Finance/Administration
• RIC/NIC Critical Resources Unit Leader (RUL)
• RIC/NIC Situation Unit Leader (SUL)
• RIC/NIC Information Officer (IO)
• RIC/NIC Liaison Officer (LO)
• RIC/NIC Law Specialist
The Regional/National Incident Command does not, in any way, replace the on-scene incident ICS organizations or functions. The above positions, if established, are strictly related to the RIC/NIC. Tactical operations continue to be directed at the on-scene IC/UC level.

2630 RIC/NIC Reporting Relationships

It is envisioned that the role of Regional Incident Commander or National Incident Commander will be filled by a Flag Officer (or their designee) with the ability to set priorities and objectives on behalf of the entire Coast Guard. When established, the RIC reports through the District and Area Commanders to the Commandant. When a National Incident Command is established, the designated NIC will normally be the Area Commander. When the NIC is not the Area Commander, the NIC will report directly to the Area Commander in whose Area Of Responsibility (AOR) the incident occurred. Maintenance and Logistics Command (MLC) Commanders shall support the RIC/NIC organization as directed by the Area Commander.

In the rare instance where the Commandant designates a National Incident Commander at Headquarters to manage an event that impacts the entire Coast Guard (for example: Y2K or a nationwide electronics systems failure), the NIC reports directly to the Commandant while maintaining close liaison with the Area Commanders.
REGIONAL INCIDENT COMMAND/NATIONAL INCIDENT COMMAND ORGANIZATION

An organization chart showing the basic RIC/NIC is:

Coast Guard (RIC/NIC)
State or other agency
(Responsibility Party)

Liaison Officer
Information Officer
RIC/NIC Law Specialist

RIC/NIC Planning
RIC/NIC Logistics
RIC/NIC Fin/Admin

Situation Unit
Resources Unit

On Scene Incident Commander

Operation Planning Logistics Finance/Admin

NRT/RRT

On Scene Incident Commander

Operation Planning Logistics Finance/Admin

Note: NIIMS Area Command includes an Aviation Coordinator position. This position was intentionally left out. The RIC/NIC can add the position anytime they determine a need for special aviation coordination.
2700 Reserved
2800 Reserved
2900 Reserved for Area/District
Northeast and Eastern Central Florida Area Contingency Plan

Annex 3000: Operations
3000 Operations

Refer to the USCG Incident Management Handbook (IMH) for a thorough discussion of the Incident Command System. For ICS forms, please see the templates. The Ops Section provides a brief overview and information specific to Northeast and Eastern Central Florida. This section is organized as follows:

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3100 Operations Section

The Ops Section is responsible for all field activities directly applicable to the primary mission. The section also directs the preparation of unit operational plans, requests or releases resources makes expedient changes to the Incident Action Plan as necessary and reports such to the Incident Commander (IC/UC). The Ops Section is comprised of the Recovery and Protection Branch, Emergency Response Branch, Air Operations Branch, and Wildlife Branch, each with subordinate units. The IC/UC will determine the need for a separate Operations Section at an incident or event. Until Operations is established as a separate Section, the IC/UC will have direct control of tactical resources. Refer to the digital ACP for information regarding Geographic Response Plans.
3110 Operations Section Chief

The Operation Section Chief is responsible for the management of all operations directly applicable to the primary mission. The Operations Chief activates and supervises and directs elements in accordance with the IAP and the Site Safety Plan. In addition, the Chief directs the preparation of unit operational plans, requests and releases resources makes changes to the IAP as necessary and reports to the Incident Commander. Refer to Appendices 9100 Emergency Notifications, 9200 Personnel and Services Directory, and 9700 Response Resources for additional information including Geographic Response Plans and Chemical Countermeasures. Other Ops Section Chief responsibilities include:

1. Implement and manage the Operations Section branches and units needed to proactively accomplish Operations Section actions.
2. Assist the Planning Section in defining strategic response goals and tactical operational objectives detailed in the Incident Action Plan.
3. Develop detailed mission assignments, sortie schedules, duty lists, and operational assignments to accomplish the strategic response goals and tactical operational objectives.
4. Identify additional response resources required or recommend the release of resources to the Unified Command.
5. Evaluate and report on response counter measure efficiency.

3120 Operation Section Objectives

3120.1 0-4 Hours

- Confirm the spill.
- Request the Coast Guard Search and Rescue Mission Coordinator (SMC) respond as necessary.
- Request Emergency Medical Services assistance as necessary.
- Deploy field response teams as soon as possible.
- Determine if the pollution source can be secured and direct operations to secure.
- Deploy containment boom as close to the source as reasonably possible.
Identify high-priority areas for early protection and select appropriate response strategies (see section 3200 of this plan).

Evaluate the severity of the incident and estimate windows of opportunity for action.

Assess the situation, including any grounding, firefighting, or salvage problems.

If salvage, lightering, or dewatering operations will be required, provide tasking to that on-scene and to support personnel ashore.

Provide tasking to divers as necessary.

Activate special teams as necessary.

Coordinate with the Qualified Individual / Responsible Party response team.

Deploy a helicopter to assess the incident from the air.

Establish a restricted airspace, as needed (see section 3430 of this plan).

Dispatch a marine inspector / surveyor for vessel incidents.

Conduct Hazardous Materials situation investigation including site surveys and air monitoring. Analyze any HAZMAT problems detected.

Estimate current, tide, and weather effects on the situation and product movement.

Identify sites for immediate pre-cleaning and assign personnel.

Continuously order personnel and equipment required for initial response as the need becomes apparent, do not wait to submit an organized or forward-projected estimate for the next operational period.

Direct the delivery and deployment of the first equipment to arrive on-scene.

Consider dispatching liaison assistants to involved Oil Spill Response Organizations (OSROs).

Institute Operational Risk Management (ORM) in accordance with Appendix 9000 of this plan for all personnel involved in the response, including civilian OSRO personnel.

Assess situation and brief Incident Commander / Unified Command. Recommend immediate objectives, priorities, and strategies based on this plan.

Initiate incident documentation NOW. Identify and document the discharge source, responsible party, and preserve this information for the document unit and finance/administration section.

If possible, execute the completion and delivery of the following federal and state forms: (1) Notice of Federal Interest; (2) Letter of Designation of Source; (3) Administrative Order (as needed); and (4) Letter of Federal Assumption (as needed).

Establish well-qualified on-scene supervisors.

Direct drug and alcohol testing (in conjunction with marine investigators and other investigators).

Identify staging areas NOW.

Activate (i.e., initiate deployment of) Oil Spill Recovery Vessels and VOSS.

Monitor personnel for signs of exhaustion and need for relief/replacement at the 4 hour mark.

### 3120.2 4-24 Hours

- Continue gathering information on the extent of the spill and assist the Planning Section.
- Conduct primary containment activities.
- Ensure that activities do not infringe upon Planning Section responsibilities. Any projected activities, especially those past 48 hours, must be coordinated with the Planning Section.
- Assist with data collection and evaluation of options to use alternative countermeasures such as dispersants or in-situ burning.
- Identify sites for progressive pre-cleaning (moving outward from areas immediately being oiled) and assign personnel.
- Estimate personnel and equipment required for initial response priorities; adjust resources ordered as needed.
- Identify safety hazards (do not rely on safety observers) that may be present and report observations to the Safety Officer.
- Work out tactics with the Incident / Unified Command and Planning Section Chief.
- Arrange for initial overflight with appropriate observers / Situation Unit Leader. Consider IR camera and video link to help tailor the response effort.
- Review results of overflight with Unified Command and determine future air operations needs with the Planning Section Chief.
- Suggest an organization and staffing for the Operations Section and all field personnel/equipment.
- Anticipate the need for replacement personnel.

### 3120.3 24-48 Hours

- Transition from an “immediate operation” driven response posture to a “preplanned operation” response posture.
- Continue to assist Planning Section with information gathering and documentation.
- Work with the Planning Section to develop/maintain an Incident Action Plan.
- Conduct primary containment and recovery operations.
- Continuously monitor resource allocation to ensure that the most effective use is being made of personnel and equipment.
The Operations Section will naturally evolve based on the needs of the incident. Refer to the Incident Management Handbook for examples of expanding the Incident Organization at an oil spill incident.
### 3140 Operational Risk Management (ORM)

Human error causes a significant number of mishaps every year that result in the loss of personnel, cutters, boats, aircraft, and equipment. Many times faulty risk decisions place our personnel at greater risk than necessary. After four major marine casualties between 1991 and 1993, including the capsizing and sinking of the F/V SEA KING, the National Transportation Safety Board issued two recommendations documenting the need for Coast Guard risk assessment training.

The application of Operational Risk Management (ORM) is not limited to Coast Guard operations as the Coast Guard usually defines them. All response missions and daily activities require decisions managing risk. In ORM "operational" refers not solely to a rated person or operator, but includes any response personnel who contribute to the overall goal of safe and effective clean up. All organizational levels contribute either directly or indirectly to operational mission success. Therefore, ORM’s target audience includes all those involved in operations, maintenance, and support activities.

Traditional risk management practices assert risk is "bad." In reality, that may not be so. Taking calculated risk is essential for an organization to grow and capitalize on its capabilities. ORM’s aim is to increase mission success while reducing the risk to personnel, resources, and the environment to a level acceptable for a particular response in a given situation. Responders should identify risk using the same disciplined, organized, logical thought processes that govern all other aspects of response operations. ORM provides the framework to minimize risk, show concern for colleagues, and maximize the unit's mission capabilities, helping to achieve the Unified Command’s direction. Additional benefits include safeguarding our responders’ health and welfare and conserving vital resources and support equipment.

### 3141 Risk Terminology

Responders need to understand terms clearly and communicate risk effectively in order to use the ORM process. Understandably, each facility and activity will differ in how it interprets risk assessment and risk management results due to unique mission differences and its members’ varying degrees of knowledge, skill, experience, and maturity. All personnel shall use the common key terms when communicating risk across program and activity lines.

**Operational Risk Management (ORM):** A continuous, systematic process of identifying and controlling risks in all activities according to a set of pre-conceived parameters by applying appropriate management policies and procedures. This process includes detecting hazards, assessing risks, and implementing and monitoring risk controls to support effective, risk-based decision-making.

**Risk:** The chance of personal injury or property damage or loss, determined by combining the results of individual evaluations of specific elements that contribute to the majority of risk concerns. Risk generally is a function of severity and probability. The models in this plan, however, single out exposure as a third risk factor.

**Severity:** An event's potential consequences in terms of degree of damage, injury, or impact on a mission.

**Probability:** The likelihood an individual event will occur.

**Exposure:** The amount of time, number of cycles, number of people involved, and/or amount of equipment involved in a given event, expressed in time, proximity, volume, or repetition.

**Mishap:** An unplanned single or series of events causing death, injury, occupational illness, or damage to or loss of equipment or property.

**Hazard:** Any real or potential condition that can endanger a mission; cause personal injury, illness, or death; or damage equipment or property.

**Risk Assessment:** The systematic process of evaluating various risk levels for specific hazards identified with a particular task or operation. Various models are available to complete this step in the ORM process.

**Risk Rating Scale:** A scale of specific risk degrees, determined during the ORM process's risk assessment step. Various responder communities and activities should use the safety industry's standard terms low, medium, and high when discussing risk across program lines. However, each community will define low, medium, and high risk in terms meaningful to its own personnel.
3142 Operational Risk Management Principles

Accept No Unnecessary Risk: All response operations and daily routines entail risk. Unnecessary risk conveys no commensurate benefit to safety of a mission. The most logical courses of action for accomplishing a response are those meeting all response requirements while exposing personnel and resources to the lowest possible risk. ORM provides tools to determine which risk or what degree of risk is unnecessary.

Accept Necessary Risk When Benefits Outweigh Costs: Compare all identified benefits to all identified costs. The process of weighing risks against opportunities and benefits helps to maximize unit capability. Even high-risk endeavors may be undertaken when decision-makers clearly acknowledge the sum of the benefits exceeds the sum of the costs. Balancing costs and benefits may be a subjective process open to interpretation. Ultimately, the appropriate decision authority may have to determine the balance.

Make Risk Decisions at the Appropriate Level: Depending on the situation, anyone can make a risk decision. However, the appropriate level to make those decisions is that which most effectively allocates the resources to reduce the risk, eliminate the hazard, and implement controls. Supervisors at all levels must ensure subordinates are aware of their own limitations and when subordinates must refer a decision to a higher level.

ORM is Just as Critical in Executing as in Planning: While ORM is critically important in operational planning stages; risk can change dramatically during an actual mission. Therefore, supervisors and senior leadership should remain flexible and integrate ORM in executing tasks as much as in planning for

3143 Quantitative G-A-R Risk Evaluation Process

We can address more general risk concerns, such as those involving planning operations or reassessing risks, as milestones within our plans are met by using the Green-Amber-Red (GAR) model. A survey of response personnel identified the following elements as contributing to the majority of risk in their operations:

(1) supervision,
(2) planning,
(3) crew selection,
(4) crew fitness,
(5) environment, and
(6) event or evolution complexity.

The GAR model incorporates these elements, further defined below:

Supervision: Supervisory control should consider how qualified a supervisor is and whether he or she actually is supervising. Even if a person is qualified to perform a task, supervision further minimizes risk. The higher the risk, the more a supervisor should focus on observing and checking. A supervisor actively involved in a task (doing something) can be distracted easily and probably is not an effective safety observer in moderate to high-risk conditions.

Planning: Preparation and planning should consider how much information is available, how clear it is, and how much time is available to plan an evolution or evaluate the situation.

Crew Selection: Crew selection should consider the experience of the persons performing the specific task or evolution. If individuals are replaced during the evolution, assess the new team members' experience.

Crew Fitness: Crew fitness should judge the team members' physical and mental state; generally, a function of how much rest they have had. Quality of rest should consider how a platform rides and its habitability, potential sleep length, and any interruptions. Fatigue normally becomes a factor after 18 hours without rest; however, lack of quality sleep builds a deficit that worsens the effects of fatigue.

Environment: Environment should consider all factors affecting personnel, unit, or resource performance, including time of day, lighting, atmospheric and oceanic conditions, chemical hazards, and proximity to other external and geographic hazards and barriers, among other factors.

Event or Evolution Complexity: Event or evolution complexity considers both the time and resources required to conduct an evolution. Generally, the longer the exposure to a hazard, the greater the risks involved. However, each circumstance is unique. For example, more iterations of an evolution can increase the opportunity for a loss to occur, but on the positive side, may improve the proficiency of the team conducting the evolution, depending on the team's experience, thus possibly decreasing the chance of error. Other factors to
Consider in this element include how long the environmental conditions will remain stable and the precision and level of coordination needed to conduct the evolution.

**Calculating Risk:** To compute the total degree of risk for each hazard, assign a risk code of 0 for no risk through 10 for maximum risk to each of the six elements to obtain an estimate of the risk. Add the risk scores to come up with a total risk score for each hazard.

If the total risk value falls in the green zone (1-23), the risk is rated low. A value in the amber zone (24-44) indicates moderate risk; consider adopting procedures to minimize it. If the total value falls in the red zone (45-60), implement measures to reduce the risk before starting the event or evolution.

The GAR model is good for a gross assessment of operational risk. If the degree of risk appears unduly high for one or more of the elements above, perform a second assessment using the SPE model for each element of concern, since the SPE model is more specific. As with the SPE model, rank-order all hazards assessed in the GAR model from the highest to the lowest risk to target areas of greatest concern first.

**Risk Ratings:** The ability to assign numerical values or color codes to risk elements in GAR model is not the most important part of risk assessment. What is critical in this ORM step is team discussion to understand the risks and how the team will manage them. Different Coast Guard operational communities have adopted the GAR model, but may interpret green, amber, and red differently for their own missions and operators. For example, law enforcement personnel may define a "green" risk level a bit higher than personnel involved in recreational boating safety.

Understanding these differences will improve communications among communities. However, a low/medium/high scale is generally understood throughout the Coast Guard and is the safety industry's widely used standard. Therefore, discussions of risk among various Coast Guard activities will use the terms low, medium, and high, but each operational community will define those terms meaningfully for its own operators.

See Appendix 9000 for a detailed discussion of the ORM process and GAR model that all supervisors in the Operations Section should be executing for each response activity they perform prior to performing it.

### 3144 Tidal Inlet Protection Strategies/Geographic Response Plans

These documents and maps were developed by the State of Florida, Research Planning, Inc. (RPI), and Marine Spill Response Corporation (MSRC) to define recommended response strategies for tidal inlets emphasizing flood-tidal conditions that would bring spilled oil thru an inlet from the open sea to potentially affect sensitive resources within. These documents and maps are in PDF format and are hyperlinked internally to a clickable index map for easy navigation to the inlet of interest.

Tidal Inlet Protection Strategies for Oil Spill Response:

Refer to digital ACP for access to Tidal Inlet Protection Strategy.

GRP maps:

Refer to digital ACP for access to GRP Maps.

### 3200 Recovery and Protection Branch

The Recovery and Protection Branch is responsible for overseeing and implementing the protection, containment and clean-up activities established in the IAP. Refer to Tidal Inlet Protection Strategies/GRP links located in the digital ACP for additional guidance.

General strategies for response to oil spills in the Sector Jacksonville AOR are identified in this section. The following response priorities will be followed:

1. Protect human life and health.
2. Minimize ecological impacts.
3. Minimize economic and public impacts.
Due to the large amount of environmentally sensitive wetlands and the abundance of endangered and threatened fauna and flora that are common to this area, the best strategy for pollution response is prevention. Should a significant spill occur in the area covered by this plan, there will almost certainly be significant environmental damage.

In the event of a spill, the fundamental protection strategy will utilize barrier boom across the mouths of creeks that lead back into marshes areas, tidal flats and mangrove swamps. This strategy, if employed correctly, will protect the maximum of environmentally sensitive areas with a minimum amount of boom. Refer to digital ACP for exact boom placement for the Sector Jacksonville area.

A second, equally important protection priority is to prevent the spread of oil out of the St. Johns River via the ICW and other river systems. To accomplish this objective, stair step booming and collection points will be employed.

The probability of success for both protection strategies is dependent upon wind and current. Currents in excess of 4 knots are common on the St. Johns River, 2.5 knots are expected in the ICW and currents in excess of 1 knot are expected in many of the creeks. The speed of response will determine the amount of damage to environmentally sensitive areas. Due to the amount of boom required, it is not feasible to protect the face of the marsh areas during a significant spill. For smaller spills this may be an option. It is hoped that the density of the marsh grasses will limit the distance into which the oil can penetrate.

Numerous environmentally sensitive areas place a high priority on rapid collection of oil. Several collection points have been identified in the Sector Jacksonville area. The majority of locations are suitable for vacuum truck/skimmer units; this area has many vacuum trucks but few skimmers. Water-based skimmers are also critical to rapid removal of oil in this area but are in extremely short supply.

Environmental Sensitivity indices list 10 types of shorelines. For response purposes, this plan has grouped these 10 types into three categories:

**High Sensitivity (Class A)**: Saltmarsh and Mangrove Swamps, Vegetated River Banks, Freshwater Marshes and Swamps, Shellfish Harvesting Areas and Eroding Bluffs;

**Moderate Sensitivity (Class B)**: Fine Sand Beaches, Coarse/Mixed Sand Beaches, Gravel Beaches, Spoil Sites, Rip Rap, Fill Sites and Tidal Flats;

**Low Sensitivity (Class C)**: Sea Walls and Piers.

Although the drinking water used in this AOR comes from wells and not the rivers, many water intakes are located on the waterways for industrial uses. The water intakes are identified on the various sensitivity maps. When a spill occurs that may result in the contamination of the intakes, the appropriate business shall be notified.

Shoreline cleanup will be conducted in accordance with shoreline sensitivity classification as outlined in sections 3210, 3220, and 3230.

### 3205 Containment and Protection Options

Refer to basic booming strategies for information concerning specific locations for containment and protection.

- Diversion Booming
- Containment Booming
- Exclusion Booming
- Cascading Booming
- Chevron Booming

### 3210 Class A Shoreline Types – High Priority

This section outlines critical operations information about Class A Shoreline Types in Northeast and Eastern Central Florida. Class A Shorelines include:

- 3211 Vegetated River Banks
- 3212 Salt Marsh and Mangrove Swamp
- 3213 Seagrass Beds
- 3214 Freshwater Marshes and Swamps
- 3215 Shellfish Harvesting Areas
3211 Vegetated River Banks

Description:
Vegetated riverbanks occur as grassy herbaceous vegetation or trees that grow along the riverbanks to the waters edge. They may occur in fresh or brackish water systems, and may be subject to flooding, depending on the slope of the bank. A variety of plant species may be found along the river banks dependant on a number of factors such as the salinity of the river, steepness of the bank, degree of flooding, and exposure to current. Many of the locations contain archaeological sites. Due to the large numbers and diversity of native plant and animal species, the possibility of archaeological sites, the difficulty of cleaning these areas, and the possibility of freshwater contamination, this habitat type was given a class A priority.

Predicted Oil Impacts:
- Small quantities of oil will cover outer edges of the area, however large quantities of oil may penetrate the sediment and coat the vegetation.
- Biological impacts may be great if oiling is heavy. Freshwater could be affected.
- The area / extent of surface oiling will also be affected by boat wakes and tides.
- Oil may persist for several months or years if not cleaned.

Recommendations for Cleaning:
- A State of Florida archaeologist should be consulted prior to any cleaning for determination of archaeological significance. High-energy areas may be cleaned naturally, particularly if oiling is light.
- Low pressure spraying may be effective.

3212 Salt marsh and Mangrove Swamp

Description:
These highly productive marshes typically occur near inlets and along the rivers behind barrier islands. In the northern end of the Jacksonville zone, marshes are primarily associated with the St. Johns River, St. Mary’s River, Nassau Sound, Matanzas River, Tolomato River, and the Halifax River. The predominant plants are cord grass (Spartina sp.) and rushes (Juncus sp.) Numerous species of wading birds, waterfowl, fishes, and invertebrates inhabit the marshes. Shellfish harvesting areas are often located within salt marshes. Salt marshes provide protection for many commercially important juvenile fish. Alligators and Atlantic salt marsh snakes inhabit these marshes.

Salt marshes in the southern end of the zone are predominantly associated with the Mosquito Lagoon, Banana River, and the Indian River. These estuarine systems are characterized by mangroves and extensive sea grass beds, in addition to cord grass and rushes. These marshes support the greatest number of nesting birds on the Florida coast including wading birds, shorebirds, hawks, eagles, and songbirds. Over 600 species of fish have been cataloged in this region. Notable reptiles that inhabit these marshes include the Atlantic salt marsh snake, alligator, and four species of threatened and endangered sea turtles.

Predicted Oil Impacts:
- Vegetation would become coated by oil, heavy oil may cause smothering;
- Persistence may be long term because of difficulty in cleaning;
- Water-soluble toxic fractions of oil may penetrate sediments;
- High degree of biologic stress to mangroves, contamination of food chain.

Recommendations for Cleaning:
- Generally cleaning is not recommended, and may cause additional physical damage to the marsh.

3213 Sea grass Beds

Description:
Sea grass meadows are one of the most important biological communities in Florida. Sea grasses are highly productive, and are a major basis for inshore food chains. Their physical structure provides living space and protection from predation for a variety of organisms.
Sea grass beds are essential nursery and feeding grounds for many marine organisms, especially commercial and recreationally important species and endangered manatee and sea turtles. Sea grasses stabilize sediments and play a key role in nutrient cycling.

Most of the sea grass beds in the Sector Jacksonville AOR are in Mosquito, Indian River and Banana River Lagoons. Large areas of shallow (<1 m) sea grass meadows occur in these water bodies. The most abundant species is shoal grass (Halodule wrightii). Other sea grass species occurring in the plan area are manatee grass (Syringodium filiforme), widgeon grass (Ruppia maritima), star grass (Halophila engelmannii), and paddle grass (Halophila decipiens).

Predicted Oil Impacts:

- Oiling of sea grass blades would result in blade defoliation as well as loss of sea grass and algal production, habitat and food for marine organisms. Recovery could take 6 to 12 months. The greatest impact to grasses would occur during low tide.
- Heavy or weathered oil could sink and smother grass beds.
- Oil has toxic effects (lethal and sublethal) on invertebrates and fishes inhabiting grass beds. Juvenile forms are most vulnerable. The greatest toxic effects occur in shallow (<1 m) grass beds.
- Oiling of sediments impact sea grass rhizomes and roots (below ground plant tissues) and infauna. This is likely to occur if oil sinks. Potential effects: below ground sea grass mortality; infauna mortality; productivity loss; sediment destabilization; and habitat destruction. Effects are greatest in shallow grass beds. Recovery time is at least 1 to 2 years, likely more.

Recommended Response Activities:

- Prevent oil from entering grass beds.
- Care should be taken to not scar grass beds with boat propellers involved in response activities.
- Extreme care should be taken to not disturb sediments during cleanup activities; this could result in the complete loss of grass bed.
- Clean up efforts onshore (e.g. water washing/flushing) should not result in deposition of oiled sediments into grass beds.
- Before and during cleaning, responders must evaluate if cleaning activities will be more detrimental to the bed than actual oiling.
- Oiled Intertidal or Exposed Grass Beds: Do not clean oiled grass blades; blades will slough off naturally. If oil is on sediment surface, remove by vacuum or hand. Minimize disturbance and removal of sediment and below ground sea grass.
- Sunken Oil in Submerged Grass Beds: Remove from grass bed annually or by vacuum. Minimize disturbance and removal of sediment and below ground sea grass. Do not worry about incidental removal of above ground grass (blades, shoots) during cleanup; these will slough off naturally.

3214 Freshwater Marshes and Swamps

Description:

Freshwater marshes within the Jacksonville AOR occur in the floodplains of the St. Johns River and associated tributaries. Marshes are characterized by emergent herbaceous plants, fluctuating water levels, and recurring fires. Typical plant species include pickerelweed, maidencane, saw grass, cord grass and rushes. Marshes are also important breeding grounds for all classes of vertebrates, particularly reptiles and amphibians dependent on the wetland resources. Freshwater marshes perform other functions such as flood control, freshwater storage areas, fisheries production, and recreation.

Freshwater Swamps are distinguished from marshes by the abundance of trees, and are basically wooded wetlands. They occur along the St. Johns River throughout the Jacksonville zone. Cypress trees are the dominant wetland tree in the zone, however other water tolerant species include pond pine, cabbage pond, black gum, willow, and laurel oak. River swamps are thought to be the most biologically diverse type of swamp, providing food, cover, and nesting areas for a number of animals. Benthic invertebrates such as crayfish, clams, snails, and insect larvae inhabit swamps, as do numerous fish, some rare and endangered. A variety of birds and mammals utilize swamps at least some part of the year, notably river otters that feed on crayfish, black bear, Florida panthers, and mink, all considered to be rare, threatened, or endangered, and swallow tail kites and Mississippi kites.

Predicted Oil Impacts

- Oil would be persistent because of the low flushing of freshwater marshes and swamps.
- Oil may cling to the vegetation further reducing natural cleaning; high mortality for resident animals.

Vegetation may be seasonally sensitive with dormant vegetation being less sensitive than blooming and seeding plants. Freshwater supplies may be contaminated by small amounts of oil.

Recommendations for Cleaning:
• Consider burning in freshwater marsh; it is a fire-adapted community. Manual cleaning from boat. Avoid any activity that mixes oil into sediment. 
• Natural recovery recommended for light oiling.

3215 Shellfish Harvesting Areas

Description:
In addition to the economic value of oysters and other shellfish, mollusks provide habitat and food for a variety of other estuarine organisms. Most shellfish areas are found along inshore coastal habitats, including the ICW, St. Johns estuaries, Banana River, Tolomato River, and the Indian River Lagoon. Oysters spawn from late spring to early fall in estuarine areas. The larvae of oysters require a solid substrate, and generally utilize existing colonies for attachment. Mollusks are filter feeders and rely on algae and suspended and dissolved organic matter for sustenance.

Predicted Oil Impacts:
• Most oyster reefs are intertidal and would be coated with oil during ebb tides.
• Oysters are in danger of smothering from silting of sediments suspended in the water column.
• Large economic losses predicted if oiling occurs in shellfish harvesting areas.

Recommendations for Cleaning:
• Do not use clean-up methods that stir up bottom sediments or mechanically damage oyster reefs.
• Natural cleaning is probably the best approach, however responders may consider low pressure cold wash.

3216 Eroding Bluffs

Description:
Eroding Bluffs or riverbanks are located along high-energy river systems. Roughly 85% of eroding bluffs in Northeast Florida contain archaeological sites. Many of these archaeological sites are shell middens, which were used as refuse areas by Native Americans. They may contain pottery shards, human and animal bones, ceramic wares, and arrowheads and other Indian hunting tools. Biological diversity may be low, however the sites are given a high sensitivity classification because of their archaeological significance.

Predicted Oil Impacts:
• Oil will disperse to the high tide line
• Oil may penetrate the sediments, particularly if they are sandy

Recommendations for Cleaning:
• An archaeologist from the Division of State must be consulted prior to any cleaning activity.
• Cleanup may be natural, depending on waves and currents as well as sediment type.
• Oil may be hand scraped off the substrate, if approved by an archaeologist.

3220 Class B Shoreline Types – Moderate Priority

This section outlines critical operations information for Class B Shoreline Types in Northeast and Eastern Central Florida. Class B Shorelines include:
3221 Fine Sand Beaches
3222 Coarse/Mixed Sand Beaches, Gravel Beaches, Spoil Sites, Rip Rap, and Fill Sites
3223 Tidal Flats

3221 Fine Sand Beaches

Description:
This shoreline type is very common on the barrier islands of Northeast Florida. Beaches may be backed by dunes in rural areas or seawalls in the more urban areas. Beaches are typically hard packed and exposed to varying degrees of wave and current energy,
depending on their location (inland or coastal). Oil penetration into the sediments would be shallow. Properties of fine sand beaches render them among the easiest of all shoreline types to clean. Often, they are fronted by tidal flats, particularly along sheltered areas. They may also be important recreational and/or economic resources. Biological diversity and density may be low, however seasonal use by seabirds and marine turtles may be high.

Predicted Oil Impacts:
- Oily bands along upper intertidal zones varying in intensity with amount of product accumulated.
- Shallow penetration of oil into sediment.
- Danger of oiling seabirds or other organisms in the intertidal zone.

Recommendations for Cleaning:
- Care should be taken to prevent mechanical mixing of oil deeper into sediments
- Minimize amount of sand removed from beach
- Caution should be exercised in dune areas, particularly where concentrations of the endangered beach mouse exist.

3222 Coarse/Mixed Sand Beaches, Gravel Beaches, Spoil Sites, Rip Rap, and Fill Sites

Description:
These shoreline types are plentiful along the coast as well as inland along riverbanks. Biological diversity and/or density may range from low along the coarse sand beaches to high among gravel beaches and rip rap. These shoreline types were classified as Class B sensitivity in spite of the fact that they are generally cleanable, because of the species richness of gravel beaches and rip rap, and because of the threatened and endangered species which utilize sand beaches and fill and spoil sites.

Predicted Oil Impacts:
- Oil may penetrate deeply into sediments on coarse sand beach, with toxic effects primarily on epifaunal amphipods.
- Little penetration of oil into fill.
- Oil will penetrate between boulders of rip rap, causing lethal effects on resident flora and fauna.
- Toxic effects on invertebrates in any of these shoreline types will have detrimental effects on grazing shorebirds.

Recommendations for Cleaning:
- On coarse or mixed grain beaches, minimize sand removal. Manual cleanup is most effective.
- Avoid excessive removal of sediment from fill, use manual cleanup or low pressure spray.
- Remove oiled debris from rip rap, consider spraying, and/or replacement of heavily oiled rip rap to prevent chronic leaching.

3223 Tidal Flats

Description:
Exposed tidal flats are primarily composed of sand and mud in shallow areas where currents and waves are sufficient to mobilize sand. The sediments are water-saturated and only the higher elevations dry during low tide. Large numbers of polychaetes, copepods, amphipods, fiddler crabs, and snails render tidal flats exceptional foraging grounds for birds. Vegetation may be present at the higher elevations.

Sheltered tidal flats are generally located along lagoon beaches, waterward of salt marshes, and other calm water locations. Sediments are extremely soft, consisting primarily of silt and clay. Although rooted vegetation is sparse, microscopic algae form the basis of the food chain. A multitude of birds are attracted to these tidal flats to feed on mollusk, crab, shrimp, flounder, mullet, and a variety of infaunal invertebrates. Many of the birds forage on sheltered tidal flats from extensive nesting colonies in nearby upland areas.

Predicted Oil Impacts:
- Oil would not be expected to penetrate water saturated sediments, but may coat the surface layer on an ebb tide.
- Biological damage may be severe with significant impact from smothering.
- Persistence may be long term in sheltered flats.

Recommendations for Cleaning:
- Deployment of sorbents from shallow-draft boats.
• Careful removal of oiled wrack.
• Mechanical damage from walking on flats can be severe.

### 3230 Class C Shoreline Types – Low Priority

This section outlines critical operations information about Class C Shoreline Types in Northeast and Eastern Central Florida. Class C Shorelines include:

- 3231 Sea Walls and Piers
- 3232 Rocky Platforms
- 3233 Tidal Flats

#### 3231 Sea Walls and Piers

**Description:**
These shoreline types are common in urban areas for protection of residential and industrial properties. They are typically constructed of concrete, stone, wood, or metal and are often inhabited by barnacles, shellfish, and algae. These shoreline types were given a low priority ranking because of their ease in cleaning, short time period for recruitment and re-establishment of biota.

**Predicted Oil Impacts:**
- Oil may percolate between joints of wooden or stone structures.
- Some biota would be damaged, other species would exhibit greater tolerance.
- Persistence of oil would be dependent upon exposure to high-energy waves and currents.

**Recommendations for Cleaning:**
- High-pressure washing to prevent chronic leaching.

#### 3232 Rocky Platforms

**Description:**
This shoreline type is rare in Northeast Florida and is typically associated with other shoreline types. In general, rocky areas can be found on shorelines facing the open ocean where they are exposed to high-energy waves and currents. This shoreline type was classified as low sensitivity because of this high-energy exposure as well as ease in cleaning. The biotic assemblage of this shoreline type consists primarily of infaunal polychaetes and amphipods, which display low sensitivity to oiling.

**Predicted Oil Impacts:**
- Oiled wrack and/or heavy oils may accumulate in depressions along rocks, slowing natural cleaning.
- Amphipods and isopods are relatively tolerant of toxic effects of oil, however, thermal absorbance capacity or rock surface may be increased.

**Recommendations for Cleaning:**
- Removal of oiled wrack.
- High-pressure spray may be effective where plants and animals are not attached.
- Natural cleaning in high-energy areas.

#### 3240 Protection Group

The Protection Group is responsible for the deployment of containment, diversion and absorbing boom in designated locations. Refer to the digital ACP (GRP Maps / Tidal Inlet Protection Strategies) for guidance. Responsibilities include:

- Deploy and maintain booms, dikes, or other protection devices as directed to accomplish protection, diversion, or containment strategies, and modify planned strategies as required by actual field conditions.
- Provide estimates of protection completion times.
- Report on the effectiveness of booming to the Operations Section Chief.
- Maintain booms and mooring systems and ensure that product which has been contained, diverted, or captured is recovered.
- Identify protection resource and logistics needs, including boom types, lengths, mooring systems, and vessel support requirements.
- Propose alternative protection strategies based on field results and environmental conditions.

### 3250 On-Water Recovery Group

The On-Water Recovery Group is responsible for managing water recovery operations per the Incident Action Plan. Refer to the digital ACP (GRP Maps / Tidal Inlet Protection Strategies) for guidance. Responsibilities include:

- Direct the delivery, deployment, and operation of skimmers.
- Provide a field status of skimming operations to the Operations Section Chief.
- Maintain estimates of product recovered.
- Identify field conditions related to the effectiveness of skimming operations.
- Identify logistics support needs for skimming operations.
- Ensure recovery and holding containers operate efficiently.

### 3251 Recovery Options

Many mechanical options exist for on-water recovery of oil, including but not limited to, dispersants, in-situ burn, skimming, and absorbent use.

The RRT IV Web is an excellent starting point for understanding the various options.


### 3252 Storage and Disposal

With on-water recovery, storage capability is limited by equipment used. All product recovered will have to be transferred to a shore-based storage facility. The Logistics Section should assist in the coordination of product transfer.

### 3260 Shoreline Recovery Group

The Shoreline Recovery Group is responsible for managing shoreline cleanup operations as per the Incident Action Plan. Refer to the digital ACP (GRP Maps / Tidal Inlet Protection Strategies) for guidance. Responsibilities include:

- Manage the personnel and equipment necessary to accomplish shore side recovery and cleanup objectives established in the Incident Action Plan.
- Report on the efficiency of shore side recovery and cleanup methods.
- Identify resource and logistics support needs.
- Project cleanup completion dates.

### 3261 Shoreline Cleanup Options

Based on the type of impact or anticipated impact, several approaches may be used.

- Manual: removal with small numbers of personnel, rakes, shovels, etc.
- Semi mechanical: removal using trimmers to cut oiled grass and raking up debris.
- Mechanical: removal includes the use of ATV’s towing debris rakes and front-end loaders or road graders for use in removal of larger area of contamination.

### 3262 Pre-Beach Cleanup

Pre-beach cleanup may include: removal of debris, trash, and cutting back grasses where permissible to limit the amount of possible contamination.
3263 Storage

Ample storage is necessary to enable oily debris to be collected safely and securely at the spill location(s). Storage can be limited to a few 55-gallon drums or can include tanks or tank trucks for large operations. When selecting a medium for storage, it is essential that the selected container is compatible with the material being cleaned up and stored.

Roll-on/roll-off dumpsters can be used to collect large amounts of oily debris, while salvage drums can be used for smaller quantities. In either case, it is essential that the drum be capable of decontamination for re-use or in the case of a dumpster or a similar large container, that it be lined with a suitable plastic material to prevent further contamination.

3270 Disposal Group

The Disposal Group is responsible for coordinating the on-site activities of personnel engaged in collecting, storing, transporting, monitoring, temporary storage, recycling, and disposal of all response wastes. Refer to Appendix 9330 for a template provided by headquarters and 9200 Personnel and Services Directory for specific information.

It is the responsibility of the OSC to ensure that any spilled oil or hazardous substance is disposed of properly once cleanup has occurred. The Resource, Conservation and Recovery Act (RCRA) and its implementing regulations contained in Title 40, Code of Federal Regulations are quite specific in defining what is hazardous waste and how it should be handled and disposed. 40 CFR 261, Subpart C lists the characteristics a substance must exhibit to be considered hazardous.

3270.1 Waste Management and Temporary Storage Options

Several factors must be taken into account when oily debris/waste begin to accumulate at a spill site:

- Amount of room to store waste containers;
- Proximity to waterway in the event a container leaks;
- Accessibility to roads and highways;
- Proximity to spill site to minimize travel for responders.

Also, when a waste storage location is established, particularly during a lengthy incident response, extra steps may need to be taken. There must be routine monitoring to ensure that the container size is appropriate, that the containers are leak free, that the plastic liners are secure, and that materials are removed promptly on a regular basis.

3270.2 Spill of National Significance Memorandum

MEMORANDUM

SUBJECT: Lessons Learned with regard to Waste Management during the Deepwater Horizon Oil Spill

FROM: Mathy Stanislaus
Assistant Administrator

TO: Regional RCRA Division Directors, Regions 1-10
Regional Superfund Division Directors, Regions 1-10
The purpose of this memorandum is to describe the lessons learned by EPA with regard to waste management during the Deepwater Horizon Oil Spill, in response to the EPA Office of Inspector General (OIG) evaluation report, *EPA Should Clarify and Strengthen Its Waste Management Oversight Role With Respect to Oil Spills of National Significance* (OIG Report No. 11-P-0706, September 26, 2011). A Spill of National Significance (SONS) is a spill that, “due to its severity, size, location, actual or potential impact on the public health and welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local, and responsible party resources to contain and clean up the discharge.” 40 CFR § 300.5. EPA provided support to the U.S. Coast Guard (USCG) during the response to the Deepwater Horizon Oil Spill, which was designated a SONS. This memorandum reflects EPA’s experiences regarding waste management activities during the Deepwater Horizon Oil Spill. While this document specifically addresses waste management for SONS, the information also may be useful for smaller discharges.

As became apparent during the Deepwater Horizon Oil Spill, a SONS will likely generate a large quantity of waste over a wide area. Many waste streams will be generated, such as:

- unadulterated waste crude oil;
- tar balls;
- oily wastewater and decontamination water;
- oil-contaminated soil and vegetative debris;
- other oil-contaminated debris;
- oil-contaminated cleanup equipment (e.g., containment booms, rags) and personal protective equipment;
- samples;
- hazardous waste and uncontaminated debris collected from cleanup operations; and
- uncontaminated trash (e.g., food waste, paper, plastic bottles, aluminum cans).

As a result of the quantities and types of waste generated from a SONS, as well as the wide area affected, EPA learned that stakeholders at federal, state, local, tribal, and territorial levels and the affected communities are likely to closely scrutinize how the waste is managed. In addition, the high visibility of the incident may result in communities, especially communities that may be disproportionally affected by waste management activities, being concerned about the management of wastes generated from the SONS in their local facilities (e.g., landfills, recycling facilities), even when those wastes are the types of wastes that generally would be managed at those facilities under normal conditions. As further described below, it is critical that 1) all waste be managed properly and 2) waste management activities be as transparent as possible, including providing interested parties with access to information regarding these activities.

### Managing Waste from an Oil Spill of National Significance

A key lesson learned from the Deepwater Horizon Oil Spill is that the magnitude and complexity of a SONS necessitate an overall framework for managing all wastes generated. It also is important that the parties involved follow all applicable laws with regard to the handling, transportation, storage, treatment, and disposal of the waste. Multiple authorities may be available to ensure that wastes are managed in a manner that is protective of human health and the environment.

The Federal On-Scene Coordinator (FOSC) has authority to ensure the proper management of all generated wastes. For example, the FOSC may direct a responsible party to describe its waste management activities in an incident-specific waste management plan. This directive can require the responsible party to develop a waste and materials management plan, subject to FOSC approval, that incorporates good waste management practices, including a waste sampling plan, tracking system/reporting plan, and community outreach plan.

In order to identify the available options for the proper management of wastes generated during a SONS, a determination should be made as to how wastes are classified under the Resource Conservation and Recovery Act (RCRA). RCRA requires that any generator

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1 This document is intended solely as guidance for U.S. EPA. It is not a regulation. It does not change or substitute for any legal requirement. This document is not legally enforceable, and does not confer legal rights or impose legal requirements upon any member of the public, States, or any other Federal agency.
2 EPA is the lead agency (the Federal On-Scene Coordinator (FOSC)) for inland SONS, and the USCG is the lead agency for coastal SONS.
3 See 40 CFR § 300.310(c) and Clean Water Act (CWA) § 311(c) or (e).
of solid waste determine whether or not the waste is defined as hazardous under RCRA\(^4\) and then manage the waste accordingly.

Nonhazardous solid waste management facilities and practices are regulated under RCRA Subtitle D, while hazardous waste is regulated under RCRA Subtitle C. Some waste streams generated as a result of an oil spill may be exempt from RCRA Subtitle C hazardous waste regulations if they meet the definition of “exploration and production” (E&P) wastes;\(^5\) however, any exempt E&P wastes remain subject to applicable RCRA Subtitle D regulations, state solid waste regulations, and possibly other specific regulations (e.g., state oil and gas regulations). Furthermore, exempt E&P waste that is mixed with non-exempt hazardous waste may be subject to the Subtitle C hazardous waste regulations.\(^6\) All wastes generated during a SONS remain subject to other authorities, such as the RCRA § 7003 (Imminent and Substantial Endangerment)\(^7\) and Clean Water Act (CWA) § 311\(^8\) authorities.

Transparency and Access to Information

Another key lesson learned is the importance of transparency and public access to information. Therefore, EPA recommends the activities described below be considered for SONS, as appropriate. To further the transparency of the waste management activities of all involved parties, waste should be tracked from its origin to its final disposition, including waste that is recycled. This tracking data should be made publically available on the appropriate website(s), along with questions and answers about the waste management activities.

Moreover, as part of any waste management oversight activities during a SONS, community concerns and environmental justice issues regarding selected facilities and transportation routes should be identified. Public meetings can be held in the affected communities to address any potential concerns or complaints with respect to waste management. In addition, using the available authorities as discussed previously, the responsible party’s waste management plan may be reviewed, if applicable, staging areas and waste management facilities may be visited, and the waste may be independently sampled to help ensure that the waste is being managed in a manner that is protective of human health and the environment. The data generated from these activities should be posted on the appropriate website(s), along with questions and answers about the waste management activities.

Conclusion

As noted previously, a SONS is a spill that may affect a large area and generate a large amount and a great variety of wastes. It is by definition a spill that requires a complex and coordinated response effort by federal, state, local, tribal, territorial, and private parties. Therefore, due to its nature, a SONS will pose challenges for the management of the generated waste. EPA plays a vital role in a SONS response and, as the Deepwater Horizon Oil Spill showed, waste management is a critical, highly visible, and long-term part of any response. EPA, as appropriate, should work with the responsible party and federal, state, local, tribal, and territorial officials, use available authorities, oversee waste management activities in support of and as directed by the FOSC, and provide information to the public to ensure that the waste is being properly managed to protect human health and the environment. For a coastal SONS, EPA may exercise its waste management authorities on a case-by-case basis in coordination with, and in support of, the USCG FOSC. A SONS is likely to raise waste management issues that have national significance, and questions may arise regarding the applicability of various authorities to the

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\(^4\) See 40 CFR § 262.11.

\(^5\) Under 40 CFR § 261.4(b)(5), “[d]rilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy” are solid wastes but are not subject to RCRA Subtitle C hazardous waste regulations.

\(^6\) More information can be found in EPA’s “Exemption of Oil and Gas Exploration and Production Waste from Federal Hazardous Waste Regulations,” which is available at [http://epa.gov/osw/nonhaz/industrial/special/oil/oil-gas.pdf](http://epa.gov/osw/nonhaz/industrial/special/oil/oil-gas.pdf). This document provides guidance on the regulatory exemption for wastes uniquely associated with oil and gas exploration and production.

\(^7\) RCRA § 7003 authorizes EPA to bring a lawsuit or issue an administrative order “upon receipt of evidence that the past or present handling, storage, transportation or disposal of any solid waste or hazardous waste may present an imminent and substantial endangerment to health or the environment.” EPA has issued guidance on the use of Section 7003, which may be found at [http://www.epa.gov/compliance/resources/policies/civil/rcra/rcrasect7003-rpt.mem.pdf](http://www.epa.gov/compliance/resources/policies/civil/rcra/rcrasect7003-rpt.mem.pdf).

\(^8\) For example, CWA § 311(c) provides broad authority to respond to discharges and threatened discharges of oil and hazardous substances as defined at 40 CFR § 116.4. CWA § 311(e) provides that when the “President determines that there may be an imminent and substantial threat to the public health or welfare of the United States...because of an actual or threatened discharge of oil or a hazardous substance from a vessel or facility, the President may take any other action under this section, including issuing administrative orders, that may be necessary to protect the public health and welfare.” The EPA Office of Enforcement and Compliance Assurance (OECA) has developed guidance addressing the issuance of orders under CWA § 311. The guidance is available at [http://www.epa.gov/compliance/resources/policies/cleanup/oil/cwaguide.pdf](http://www.epa.gov/compliance/resources/policies/cleanup/oil/cwaguide.pdf).
management of generated wastes. Therefore, we encourage you to consult with the EPA Headquarters Emergency Operations Center, which will be activated to support EPA’s activities for an inland or coastal SONS in support of the FOSC.

If you have any questions on this memorandum, please contact Betsy Devlin, Director, Materials Recovery and Waste Management Division, at (703) 308-7906 or devlin.betsy@epa.gov, or have your staff contact Melissa Kaps at (703) 308-6787 or kaps.melissa@epa.gov.

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3270.4 EPA Framework for a Model Waste Management Plan for SPILLS OF NATIONAL SIGNIFICANCE (SONS)

Purpose

The purpose of this framework for a model waste management plan is to provide to EPA emergency managers, planners, and responders the key elements of waste management planning for an oil discharge that is declared a Spill of National Significance (SONS). The National Contingency Plan contingency planning process utilizes Area Committees comprised of members from federal, state, territorial, local, levels of government (e.g., EPA, U.S. Coast Guard, On Scene Coordinators (OSCs), Regional Response Teams) as well as Non-Governmental Organizations. Other waste management resources (e.g., petroleum industry, waste management facility owners/operators) may also be useful to include in the planning process. These Area Committees are involved in developing Regional Contingency Plans (RCPs) and Area Contingency Plans (ACPs) in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP, 40 CFR Part 300). A SONS is “a spill that, due to its severity, size, location, actual or potential impact on the public health and welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local, and responsible party resources to contain and clean up the discharge” (NCP, 40 CFR§300.5).

Experience with major oil discharges has shown that many of the waste management planning elements are similar and can be planned for ahead of time, and then tailored to the site-specific spill conditions at the time of the SONS. Although an oil SONS will likely involve a responsible party, past incidents have shown that these key elements should be planned for by all stakeholders and be documented within a pre-incident waste management plan and made part of appropriate RCPs and/or ACPs. The initial step for regional emergency managers, planners and responders in preparing this plan should be to collect existing public and private sector emergency response plans that may contain some of the waste management elements that are identified in this document. For example, Debris Management Plans commonly utilized for natural disasters and Facility Response Plans as required in 40 CFR § 112.20 for certain oil related exploration or production facilities, as well as other emergency response plans, may provide some of the information needed to create a waste management plan for a SONS.

Application
This framework for a model waste management plan for a SONS is intended to reflect the necessary planning elements to prepare for the waste management demands of a SONS as part of inland and coastal RCPs and ACPs. The creation of this plan is part of a four step waste management planning process that covers the spectrum from (1) pre-incident planning activities, to (2) pre-incident plan development, (3) training on the various elements of the plan and execution of the plan through operational and tabletop exercise, and (4) incident-specific implementation (Figure 1). Most of the effort in effective waste management planning for a SONS should take place in the pre-incident stage, so that efforts during an incident can focus on tailoring the pre-incident plan to incident specific conditions as the response unfolds. This framework reflects actual lessons learned and actions taken by the EPA and the U.S. Coast Guard (USCG) during the Deepwater Horizon (DWH) SONS in 2010. This framework also is intended to fulfill a corrective action associated with the EPA’s Office of Inspector General Report No. 11-P-0706, “EPA Should Clarify and Strengthen Its Waste Management Oversight Role With Respect to Oil Spills of National Significance,” September 26, 2011.

Figure 1. Four Step Waste Management Planning Process
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1.0 PURPOSE, SCOPE & KEY CONTACTS

Purpose and scope of the waste management plan

A waste management plan for an Oil SONS response should be a dynamic document that can expand with the incident as it unfolds and is robust enough to address a worst case scenario. It should include appendices to address state-specific waste management requirements. The purpose and scope of a waste management plan for a SONS response is to:

- Protect human health and the environment associated with waste management activities throughout the affected area;
- Identify waste management regulatory, staffing, and resource needs across all affected states and regions;
- Identify the types, and quantities, of wastes that are likely to be generated from a SONS (estimates can be used from past oil spill experiences);
- Develop a waste sampling and analysis process to characterize the wastes;
- Establish waste management strategies for each waste type, including collection, segregation, staging, temporary storage, minimization, treatment, and disposal;
- Identify and assess waste recycling, treatment, storage, and disposal facilities that can process the amounts of waste anticipated;
- Identify waste acceptance criteria, sampling, labeling, and tracking requirements for each waste management facility that may be utilized in the waste management response;
- Develop a transportation plan describing how wastes should be transported from their point of generation to a waste management facility;
- Establish waste tracking and reporting processes to provide transparency in waste management operations;
- Establish waste management oversight activities and an exit strategy for waste management activities;
- Establish community outreach and communications processes; and
- Establish health and safety practices in support of waste management activities.

Key federal, state, local, tribal, and territorial contacts

This section should identify the key points of contact for the federal, state, local, tribal, and territorial governments (governments), as well as key asset managers, including owner/operators of key public and private sector waste management facilities. It should include emergency phone numbers and emails of the appropriate waste management officials that will be coordinating and executing the waste management plan.

SECTION 2. WASTE MANAGEMENT REQUIREMENTS, WASTE TYPES & QUANTITIES

This section of the waste management plan should attempt to identify the major waste management requirements for each type of waste that may be associated with a SONS. This should include applicable requirements at the local, state, and federal levels. What makes a SONS unique is that it can span a large geographical area, covering different response regions, territories, and states. While there are federal standards for management of solid and hazardous wastes, most state programs have been approved or authorized to operate in lieu of the federal program. States may also have regulations or requirements that are more stringent or broader in
scope than federal requirements. As a result, it is important that emergency managers, planners and responders identify and reflect these differences in waste management requirements into waste management plans.

**State, local, tribal, and territorial waste management requirements**

State, local, tribal, and territorial waste management resources may be overwhelmed in a SONS response. The magnitude of wastes generated, the wide area affected, and the type of wastes generated may make it difficult to find public and private sector waste management facilities that can or will accept the waste. Therefore, it is important that waste management plans are robust enough to address the magnitude of response needed for a SONS response. States and local governments may already have in place administrative orders or emergency declarations that address state or local waste management requirements and operations in response to a SONS. These orders and declarations may already address procedures for establishing staging areas, listing potential landfill sites, identifying waste manifest signature delegation authority for the generator, and prescribing the types of materials that may be sent to particular types of facilities. These orders and declarations may also allow certain additional materials to be disposed of in these facilities, consistent with state laws and any additional measures that need to be taken for this disposal to occur. As a result, it is important that state, local, tribal, and territorial waste management requirements and any private sector waste management plans be reflected in the development of a waste management plan as part of the RCPs and/or ACPs for each state and region. The waste management plans should also be flexible and acknowledge that as the response unfolds affected governments may amend or issue new administrative orders or emergency declarations.

Previous large oil spills have provided insights into the type of wastes to expect from a SONS as well as the typical approaches utilized in response to a SONS. However, spills may have unique elements that factor into waste management decisions. These include differences in the physical and chemical properties of the products involved (e.g., light crude, heavy crude, refined oil, shale oil), how the oil is released (e.g., release from a vessel, well blowout, or pipeline break), weather conditions, the use of different types of dispersants, and environmental conditions. The typical waste materials from a SONS are shown in Table 1 below.

**Table 1. Waste/Materials Types from a SONS**

<table>
<thead>
<tr>
<th>WASTE TYPE</th>
<th>WASTE DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oily Solids</td>
<td>Oil-contaminated material that may include debris, soil, sand, boom, and vegetation; weathered oil (e.g., tar balls); oily personal protective equipment (PPE); disposal equipment; sorbents</td>
</tr>
<tr>
<td>Non-oily Solids</td>
<td>Non-oiled material that has been recovered from support operations of the cleanup activities, including office trash, non-oiled beach debris, general garbage, non-oiled vegetation</td>
</tr>
<tr>
<td>Waste Type</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Medical Waste</td>
<td>Sharps, syringes, PPE, &amp; other medical-related material generated from operations at wildlife rehabilitation centers or command centers</td>
</tr>
<tr>
<td>Oily Liquids</td>
<td>Oil and water mixtures or emulsions (e.g., from skimming or oil recovery operations)</td>
</tr>
<tr>
<td>Liquids</td>
<td>Primarily water that may have an oily sheen or contain minor amounts of free oil droplets (e.g., onshore decanted water, storm water, decontamination water, treated water)</td>
</tr>
<tr>
<td>Recyclable/Recoverable Materials</td>
<td>Plastic bottles, hard boom, aluminum cans, scrap metal, glass, cardboard, soft absorbent boom</td>
</tr>
<tr>
<td>Incident/field-related Laboratory Waste</td>
<td>Incident-related wastes generated by decontamination of the sample collection equipment and analysis of samples at on-site incident-related laboratories, including designated research vessels</td>
</tr>
<tr>
<td>Hazardous Waste</td>
<td>Non-exempt oil and gas production wastes that are listed hazardous wastes or exhibit hazardous waste characteristics</td>
</tr>
<tr>
<td>Animal Carcasses</td>
<td>Animal carcasses identified during shoreline cleanup or generated from operations at the wildlife rehabilitation centers</td>
</tr>
<tr>
<td>Laboratory Analysis Waste</td>
<td>Analytical sample wastes generated from the analyses of samples at fixed analytical laboratories</td>
</tr>
</tbody>
</table>

Quantities of different waste types anticipated

Knowledge of the type and size of prior oil spills can be valuable in estimating the quantities and types of wastes generated compared to the amount of oil released. The quantity and types of wastes anticipated are also influenced by the physical and chemical properties of the products, the type of release, weather conditions, the use of dispersants, and environmental conditions. The International Petroleum Industry Environmental Conservation Association's
(IPECA) historical data (Figure 1) show that oil spills impacting the shoreline can produce up to 30 times more waste than the volume of oil spilled.9

![Figure 1. Waste Generated During Historical Oil Spill Incidents](image)

This information, along with the breakdown of different types of waste generated during previous oil spills (Table 2), provides an excellent tool for forecasting the quantities of waste that are likely to be generated during a SONS response. This information also assists in planning for the sampling and analysis for these waste types and quantities.

<table>
<thead>
<tr>
<th>WASTE TYPE</th>
<th>TOTAL</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oily Liquida</td>
<td>459,781</td>
<td>Oil Barrels</td>
</tr>
</tbody>
</table>

---

### Waste sampling and analysis

Standard sampling and analysis methodologies (Table 3), frequencies of sampling, and data reporting of each of the anticipated waste streams should be identified in a Waste Sampling and Analysis Plan as part of the overall Waste Management Plan. This will allow responders to determine the characteristics of the waste and identify appropriate receiving waste management facilities. This is important because waste management facility permits typically contain facility-specific waste acceptance criteria and waste generators may be required to complete facility-specific waste profiles before the waste management facility can accept the waste. Sampling and analysis of waste streams also provide information necessary for developing Health and Safety plans for response workers, waste management facility operators and waste haulers. As the response unfolds, it may be appropriate to amend the Sampling and Analysis Plan to reflect potential changes in waste streams.

**Table 3. Example of a Waste Sampling and Analysis Table Common to an SONS Response**

<table>
<thead>
<tr>
<th>Matrix</th>
<th>Description</th>
<th>Sampling Frequency</th>
<th>Analysis</th>
<th>Handling</th>
<th>Disposal</th>
</tr>
</thead>
</table>

Source: Deepwater Horizon Website; Data as of December 31, 2011

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| **Solid** | Oil-impacted material that may include debris, soil, sand, vegetation; solid weathered oil (e.g., tar balls); PPE; disposal equipment; sorbents; etc. Material shall be drained of recoverable oil, as practicable (oil shall be collected for potential re-processing or other use). | Once per week | TCLP SW 846 1311/ VOCs by SW 846 8260C TCLP SW 846 1311/ SVOCs by SW 846 827070D TCLP SW 846 1311/ Metals by SW 846 6010C & SW846 7471A Paint Filter Test SW846 Method 9095 | Appropriate containers (i.e., lined or sealed) transported by approved waste hauler | Approved disposal facility |
| **Non-Oily solids** | Non-Oily solids that may include municipal waste material that has been recovered from support operations of the cleanup activities. Including trash and garbage. | None required | None | Containers transported by approved waste hauler | Approved disposal facility |
| **Liquid** | Water, oil and emulsion collected during skimming operations, by vacuum truck from decontamination facilities, management of storm water at land-based decontamination sites, etc. This category also includes excess decontamination water that accumulates during the closed loop decontamination process. | As needed basis based on final disposition of liquid | TCLP SW 846 1311/ VOCs by SW 846 8260C TCLP SW 846 1311/ SVOCs by SW 846 827070D TCLP SW 846 1311/ Metals by SW 846 6010C & SW846 7471A Ignitability by SW846 Chapter 7 | Appropriate container (e.g., vacuum truck) transported by approved waste hauler. Storage in frac tanks at staging area prior to transport. Barge transportation and storage. | Approved recovery/disposal facility |

Further information regarding a waste sampling and analysis plan for a SONS can be found at: [http://usresponse.bp.com/external/content/document/2911/963703/1/Appendix_B_Waste_Sampling_Plan.pdf](http://usresponse.bp.com/external/content/document/2911/963703/1/Appendix_B_Waste_Sampling_Plan.pdf)
Waste management quality assurance

A waste management quality assurance project plan (QAPP) may also be useful for SONS response because of the amount of waste management data that will be generated from sampling and analysis, as well as for the long period of time over which this data maybe collected. A QAPP lays out waste management sampling and analysis objectives; the organization of and responsibility for waste management sampling and analysis efforts; data quality objectives; quality control measures; sampling and analysis procedures; calibration procedures; preventive maintenance; data reduction, validation and reporting; and performance and system audits. Table 4 contains information commonly included in a QAPP to ensure that the quality measures inherent with specific waste analytical methods are adhered to during sampling and analysis.

Table 4. Example of Analytical Quality Assurance Criteria Common to an Oil SONS

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Analytical Methods</th>
<th>Matrix</th>
<th>Container</th>
<th>Preservation</th>
<th>Minimum Sample Volume</th>
<th>Holding Time to TCLP Extraction</th>
<th>Holding Time from TCLP Extr to Analytical Prep</th>
<th>Holding Time for Analytical Prep to Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCLP VOCs</td>
<td>SW846 1311/8260C</td>
<td>Solid or Liquid Waste</td>
<td>Glass</td>
<td>≤ 6°C</td>
<td>16 oz</td>
<td>14 days</td>
<td>NA</td>
<td>14 days</td>
</tr>
<tr>
<td>TCLP SVOCs</td>
<td>SW846 1311/8270D</td>
<td>Solid or Liquid Waste</td>
<td>Glass</td>
<td>≤ 6°C</td>
<td>16 oz</td>
<td>14 days</td>
<td>7 days</td>
<td>40 days</td>
</tr>
<tr>
<td>TCLP Metals</td>
<td>SW846 1311/6010C 1311/7470A</td>
<td>Solid or Liquid Waste</td>
<td>Glass</td>
<td>≤ 6°C</td>
<td>16 oz</td>
<td>180 days</td>
<td>180 days</td>
<td>180 days</td>
</tr>
<tr>
<td>TCLP Mercury</td>
<td>SW846 1311/7470A</td>
<td>Solid or Liquid Waste</td>
<td>Glass</td>
<td>≤ 6°C</td>
<td>16 oz</td>
<td>28 days</td>
<td>28 days</td>
<td>28 days</td>
</tr>
<tr>
<td>Ignitability</td>
<td>SW846 Chapter 7</td>
<td>Solid or Liquid Waste</td>
<td>Glass</td>
<td>≤ 6°C</td>
<td>16 oz</td>
<td>NA</td>
<td>NA</td>
<td>14 days</td>
</tr>
</tbody>
</table>
Further information regarding a waste management QAPP for a SONS can be found at: http://usresponse.bp.com/external/content/document/2911/963699/1/Appendix_B_1_QAPP_web_version_COMBINED.pdf.

SECTION 3. STRATEGIES, FACILITIES & ASSETS

Emergency managers, planners and responders should evaluate waste management strategies, facilities, and assets (e.g., equipment, supplies, personal protective equipment) to ensure that they can handle the anticipated waste types and quantities to be generated from cleanup operations.

Waste management strategies for a SONS

Emergency managers, planners and responders should pre-identify best waste management practices during a SONS, including, as applicable:

Identify potential impact sites before oil has reached the shoreline and clear them of debris to reduce the amount of contaminated wastes to be handled;
Segregate different types of wastes (liquid, solid, debris, personal protective equipment (PPE), hazardous, non-hazardous) wherever possible;
Implement procedures to prevent spills, rainwater infiltration and runoff at waste management sites;
Label all waste containers and identify the location they came from;
Clean and reuse recovery equipment whenever possible, rather than discarding after one use;
Use reusable personal protective equipment wherever possible;
Reduce secondary contamination from the spread of oil by people, transportation, or equipment;
Place solid waste in lined and bermed areas for subsequent management;
Place oil-contaminated materials in closed-top, 55 gallon drums, sealed plastic bags, or roll-off boxes for temporary storage, all segregated within lined/bermed secondary containment areas;
Avoid mixing any oil or oily wastes with non-oiled waste and avoid mixing hazardous and non-hazardous wastes;
Prevent oily wastes from contaminating soil by using liners underneath drums, tanks and decontamination sites;
   a. Use sorbent pads and booms until they become moderately oiled;
   b. Minimize day-to-day non-hazardous waste generated as part of response activities; and
Properly categorize, segregate, inventory, and transport wastes accumulated in temporary storage locations.

Applying waste management strategies in response to a SONS

A hierarchy common to waste management operations is that source reduction is the preferred option, followed by reuse or recovery and treatment, with disposal being the least desirable and often the most expensive option (Figure 2). Applying this hierarchy to an oil SONS waste management plan would commonly result in these best waste management practices:

**Figure 2. Waste Management Hierarchy and Practices**

Emergency managers, planners and responders can use these best waste management practices (Figure 2) to develop a strategy for waste management activities. They may develop a waste and material handling flow diagram to identify a “cradle to grave” process flow of waste management activities for a SONS to include where waste will be generated, what waste will be generated, how much will be generated, the rate of waste generation, and the physical state
(solid, liquid, gas) of the waste. It may also reflect the proper waste characterization and management approaches that meet all applicable government requirements. The figure below (Figure 3) represents a high level process flow of materials management for a SONS. A flow diagram like this enables waste management decisions for a SONS based upon an understanding of the incident, the release, and the overall response strategies.

**Figure 3. Typical Waste and Material Flow Diagram for an Oil SONS**

Many waste treatment, storage and disposal facilities and other assets (equipment, supplies, etc.) may be needed to support the types and quantities of waste associated with a
SONS. These assets may be needed over a large geographic area, often including facilities and assets outside of the area directly affected by the spill. As a result, emergency managers, planners and responders may further define this high level strategy to more specifically identify the resources and assets required. Table 5 below provides a useful way of beginning the process of assessing the resources that will be needed to support the high level strategy outlined in Figure 3.

Table 5. Resource Needs to Support Waste Management Strategies for an SONS Response
### Waste management facilities & assets typically required for a SONS response

The history of oil spill responses shows the potential need for the following waste management facilities and equipment, which should be pre-identified and planned for to support a SONS response:

a. Waste staging and storage locations;

b. Equipment staging and storage locations;

<table>
<thead>
<tr>
<th>Generation Location or Retrieval Activity</th>
<th>Waste Material Type</th>
<th>Verification / Manifesting</th>
<th>Transport</th>
<th>Quantity and Quality?</th>
<th>Disposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations Staging Areas</td>
<td>Solid Wastes</td>
<td>On-site consolidation, transfer to waste staging area for further consolidation and manifesting</td>
<td>Roll-off box</td>
<td>Generally not sufficient quantity of uniform material to be considered for recycling</td>
<td>Approved landfill</td>
</tr>
<tr>
<td>Vessels of Opportunity Deployment Locations</td>
<td>Solid Wastes</td>
<td>On-site consolidation, transfer to waste staging area for further consolidation and manifesting</td>
<td>Roll-off box</td>
<td>Generally not sufficient quantity of uniform material to be considered for recycling</td>
<td>Approved landfill</td>
</tr>
<tr>
<td>On-Shore Decontamination Stations</td>
<td>Solid Wastes</td>
<td>On-site consolidation, transfer to waste staging area for further consolidation and manifesting</td>
<td>Roll-off box (solids)</td>
<td>Generally not sufficient quantity of uniform material to be considered for recycling</td>
<td>Approved landfill (solids)</td>
</tr>
<tr>
<td></td>
<td>Oily Solids</td>
<td></td>
<td>Vacuum truck (liquids)</td>
<td></td>
<td>Approved recycling, treatment, or disposal facility (liquids); water is separated, treated and discharged via POTW.</td>
</tr>
<tr>
<td>Shore-line Cleanup Operations</td>
<td>Solid Wastes</td>
<td>On-site consolidation and manifesting, or transfer to waste staging area for further consolidation and manifesting</td>
<td>Roll-off box</td>
<td>Oily solids that are uniform and have sufficient quantity of oil for recovery are sent for recycling</td>
<td>Approved landfill (solids); oily solids may segregated for potential future recovery efforts</td>
</tr>
<tr>
<td>Skimming Operations</td>
<td>Oily Solids</td>
<td>On-site consolidation, transfer to waste staging area for further consolidation and manifesting</td>
<td>Barge or vessel</td>
<td>Materials that are uniform and have sufficient quantity of oil for recovery are sent for recycling</td>
<td>Approved landfill (solids)</td>
</tr>
<tr>
<td></td>
<td>Liquids</td>
<td></td>
<td></td>
<td>Approved recycling facility; oily solids (e.g., sorbent boom) may be centrifuged and separated oil sent for recycling</td>
<td>Approved recycling, treatment, or disposal facility (liquids); water is separated, treated and discharged via POTW.</td>
</tr>
</tbody>
</table>
c. Decontamination stations (for boom, vessels, personnel, equipment, recovered water, etc);
d. Oil recovery and recycling facilities;
e. Water recovery facilities;
f. Solidification facilities;
g. Wastewater treatment facilities;
h. Hazardous and solid waste treatment facilities and landfills;
i. Waste transfer stations;
j. Deep well injection facilities;
k. Medical waste incinerators;
l. Municipal solid waste or hazardous waste incinerators;
m. Vacuum trucks;
n. Barges, private boats, and other vessels;
o. Off-road vehicles, aircraft, helicopters;
p. Oil skimming devices; oil tankers or barges for collecting skimmed oil;
q. Oil/water pumps, separators, tanks and trucks;
r. Waste and dump trucks, front end loaders;
s. Roll off bins;
t. Plastic bags, carboys, booms, spill control equipment;
u. Sampling equipment and supplies; and
v. Lots of PPE.

To manage and monitor a waste management operation during a SONS, the Federal On-Scene Coordinator (FOSC) may want to maintain tables11 to track all of the waste management facilities utilized during the response. The FOSC may find it helpful to maintain maps12 showing the location of these facilities on a publicly accessible website to enhance public transparency.

To ensure that the proper waste management method is applied for each waste type, emergency managers, planners and responders should evaluate the technical considerations for each of the waste management techniques above, and any others to be incorporated in the waste management plan.13 Fortunately, there is a substantial amount of information available from past large oil spills on the capacity, uses, equipment needs, as well as the pros and cons for each of these different methods.14 Additional waste management planning resources are included at the end of this model waste management plan.

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11 Table of Deepwater Horizon Waste Management Facilities, Accessed on the Deepwater Horizon Oil Spill Website, Feb 2012,
12 Maps accessed on the Deepwater Horizon Oil Spill Website, Feb 2012;
http://usresponse.bp.com/go/doc/2911/962795/Location-of-staging-areas-and-landfill-disposal-facilities
13 Guidelines for Oil Spill Waste Minimization & Management, IPIECA, 2004, pgs 15-16,
http://www.ipieca.org/library?tid=8&tid_1=12
14 Oil Spill Response Manual, ExxonMobil, 2008, Section 14.6,
In addition to the type of waste management facilities needed, it may be useful to preliminarily identify specific facilities that may be used during the response. As can be seen from Figure 4, there are not many hazardous waste management facilities across the country. So, depending upon where the incident occurs and the types of wastes generated, transporting waste to an appropriate facility may be a significant issue. In addition, each waste management facility has operating permits issued by the appropriate federal or state waste management authority. Each facility has specific waste acceptance criteria and waste characterization requirements that must be met before waste may be shipped to it.

Figure 4. US Hazardous Waste Landfills, Incinerators & Low Level Radiological Waste Facilities

In addition to the hazardous waste management facilities in Figure 4, there are many solid waste management facilities across the country that are permitted and overseen by state, local and tribal waste management officials. These facilities also have different designs, acceptance criteria, and permit conditions so utilization of a solid waste management facility for a SONS still calls for coordination, approval and perhaps emergency authorizations from state, local and tribal waste management officials.

Evaluation of Waste Management Facilities & Assets for Utilization during an Oil SONS

A response to a SONS is a highly visible event that can be expected to draw intense attention from the public and the media, as well as federal, state, local, and tribal waste...
management officials. As a result, emergency managers, planners and responders may want to evaluate potential waste management facilities (e.g., landfills, staging and decontamination areas, recyclers, waste water treatment plants, deep well injection sites) and equipment prior to an incident and document this within the pre-incident waste management plan. This will make it much easier and faster to include them in the incident specific waste management plan that will be approved by the Incident Command or Unified Command for use during a SONS response. This assessment should include the following considerations (Table 6):

Table 6. Considerations for Evaluation of Potential Waste Management Facilities

<table>
<thead>
<tr>
<th>Waste Compatibility</th>
<th>Insurance</th>
<th>Site Closure Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility Capacity</td>
<td>Safety Record</td>
<td>Adjacent Properties</td>
</tr>
<tr>
<td>Facility Acceptance</td>
<td>Community Relations</td>
<td>Storm-water Controls</td>
</tr>
<tr>
<td>Financial Status</td>
<td>Public Acceptance</td>
<td>Spill Control Plans</td>
</tr>
<tr>
<td>Distance</td>
<td>State Concerns</td>
<td>Drum/Container Storage</td>
</tr>
<tr>
<td>Costs</td>
<td>Environmental Monitoring</td>
<td>On-Site Laboratory</td>
</tr>
<tr>
<td>Compliance History</td>
<td>Environmental Justice</td>
<td>Record Keeping</td>
</tr>
</tbody>
</table>

The plan should identify the potential waste management facilities and other equipment that may be needed to manage the waste from a SONS, taking into account the considerations identified in Table 6. These facilities and equipment are owned by both the public and private sector and therefore those stakeholders may also be included as part of this planning process. Taking the time to identify these resources with the key stakeholders that own and operate them is one of the most important indicators as to whether an RCP or ACP is sufficient to support a SONS response. The other key component is actually testing the waste management plan during exercises that include the key waste management stakeholders. An example of a spreadsheet that emergency managers, planners and responders may want to develop and include as part of this plan is identified in Figure 5.

Figure 5. Waste Management Facilities and Asset Preparedness Spreadsheet
Transportation Considerations

During the waste management activities for a SONS response, operations will often occur on shore (beaches, ports, marshes, etc.), at sea or on inland waterways, and inland. A SONS response will involve transportation of a tremendous amount of different types of waste in many different kinds of vehicles, vessels, and containers. Transportation of waste may be regulated by EPA and approved or authorized states, as well as the federal Department of Transportation and state departments of transportation, which may call fora great deal of pre-planning, logistics, and oversight. A SONS response may involve the use of dump trucks, front-end loaders, pump trucks, all-terrain vehicles, aircraft, boats, skimmers, helicopters, oil tankers, private boats, and other vehicles. As a result, emergency managers, planners and responders may want to develop a transportation plan to support waste management activities, including sources of these vehicles and advance agreements for their use. The transportation plan should include the following considerations, as appropriate:

a. Type of vehicles to be utilized, categorized by waste type, media (i.e., soil or sediment, water, air), and areas in which they will be operating (e.g., states, tribal areas, and ACP Region);

b. Waste haulers, permits, placarding, and documentation (e.g., EPA or state ID numbers, waste manifests, waste profiles) by vehicle, waste type, and area of operation;

c. Insurance requirements for vehicles;

d. Spill response plan for vehicles;

e. Inter-and intra-state transportation routes; Inspections; and

f. Decontamination of vehicles during the response and at the end of the response.
SECTION 4.0 WASTE/MATERIAL TRACKING & REPORTING

The national hazardous waste management framework is based upon a “cradle to grave” system designed to ensure the proper management of hazardous wastes and the protection of public health and the environment. In addition, the IC set up in response to a SONS will likely establish tracking and documentation of waste management activities to keep the IC informed of the progress of cleanup and waste management operations. As a result, a material tracking and reporting system can often be an important element of a waste management plan for a SONS.

As previously mentioned, a SONS involves the generation of large volumes of waste, often exceeding what waste management facilities handle in the course of an entire year or years of operation. In addition, this waste may be managed over a very large geographic area, involving many state and local governments, as well as a large number of waste management facilities. In order to assure the public, the media, and federal, state, local and tribal officials that the waste from a SONS is being managed appropriately, it may be important to demonstrate that a waste tracking and reporting system is in place. Accomplishing this goal calls for careful pre-incident planning to identify who is responsible for keeping the tracking system updated with accurate information, establishing data management and data quality control methods to ensure the accuracy of the reporting, and verifying that this system will provide the IC the information necessary to effectively oversee the waste management activities associated with a SONS. A material management tracking and reporting system may include, as feasible:

a. Reporting of waste sampling and analysis results by location;
b. Uniform tracking of waste and other materials, covering recovered product, and liquid and solid wastes;
c. Tracking the quantity and volume handled at each waste management location, including where waste is temporarily (e.g., staging areas) or permanently (e.g., disposal site, recovery operation) located;
d. Reporting on the status of waste management activities on a daily and cumulative basis for each type of material;
e. Cost recovery of waste management activities;
f. Online web posting showing how and where each category of waste is being managed, and the quantities accepted at each location; and
g. Archived posting of the Incident Command System (ICS) reports (e.g., ICS 209, “Oil Spill Incident Status Summary”).

This waste management data may be used to answer information requests from senior governmental officials, the media and the public. To maximize transparency, the Incident Command may want to provide waste management information to the public as it becomes available. A SONS may involve hundreds of thousands of waste management data points as a result of sampling and site visits conducted on waste management facilities where material was staged, stored, treated, and disposed of. Having a system in place to track and report out that information allows for a “cradle to grave” management system of waste from points of...
generation, to staging, storage, treatment, recycling, and disposal. It also allows those involved in the response, as well as waste management officials, the media, and the public to visualize the waste management process. A typical report produced from this tracking system is included in Table 7, which includes ICS Form 209, “Oil Spill Incident Status Summary.”

Table 7. Example Waste Management Tracking System For an Oil SONS

![Table 7. Example Waste Management Tracking System For an Oil SONS](image)


**Data management associated with waste management activities**

Data management is an important element of the waste management planning process. The magnitude of this effort is easy to underestimate. A SONS response may involve hundreds
of thousands of data points in tracking the entire waste management process. The Incident Command may want to update data regularly throughout the response and potentially also for extended periods beyond that, depending upon the timeframe of the long term recovery plan. This waste management data typically includes data on sampling and analysis; staging and storage; transportation tracking; waste manifests; waste acceptance; chain of custody; treatment and disposal; health and safety; site visits; waste type, designation and categorization; waste shipment logs; waste weight tickets; etc. The data management plan is often part of the QAPP referred to in Section C. A particular concern for management of waste management data is to define common units of measurement (e.g., tons, cubic yards) in which data will be reported to facilitate timely posting of data from different sources. The suggested content for a data management plan includes:

a. Description of the data generation, chain of custody and management process (i.e., from generation to final disposition);
b. Description of or reference to record-keeping procedures and document control, data storage, retrieval and security systems;
c. Identification of data handling equipment and procedures to process, compile, and analyze data;
d. Discussion of data handling procedures to detect and correct errors and loss during data processing;
e. Examples of any forms or checklists to be utilized;
f. Identification of any specific computer hardware and software performance requirements and how configuration acceptance will be determined;
g. Description of how data management requirements will be satisfied;
h. Identification of the names of individuals responsible for data validation, verification, and website posting;
i. Identification of any protocols for the timeliness of data posting; and
j. Identification of website formats and reporting formats, as well as frequency of reports, and archiving of data.

SECTION 5.0 OVERSIGHT ACTIVITIES & EXIT STRATEGY

A SONS response will likely involve large scale waste management activities that involve many contracts for waste management services. Waste management officials may find that part of their response role is oversight of waste management activities, contractors’ performance, and cost accounting associated with these efforts. This may involve oversight of waste management operations conducted either by a responsible party or by federal, state and local emergency responders. This can be a large effort during a SONS due to the potential for a large number of waste management sites and facilities. As a result, it is recommended that these oversight efforts be planned ahead with a shared responsibility between federal, state, local, and tribal waste management resources. The waste management plan should also include a draw-down or exit strategy for oversight activities.

Waste management oversight activities
During a SONS, waste management officials may be involved in many different types of waste management oversight activities. This section is intended to facilitate planning for waste management oversight activities and approach. These activities may include:

a. Review and approval of the responsible party’s waste management plans;
b. Review and approval of the proposed waste management facilities;
c. Independent sampling and analysis of waste streams;
d. Site visits or inspections of waste management facilities and sites (e.g., staging, storage, and decontamination sites, landfills); and
e. Reporting and posting of waste sampling results on an oil spill website.

These waste management oversight activities generally call for development of plans in support of these activities, taking into account quality assurance and data management considerations, development of forms for the information gathered, and reporting formats to make the information collected publically available.

**Waste management oversight exit strategy/transition plan**

Since waste management activities associated with a SONS can go on for extended periods of time it is important for the FOSC to also plan an exit strategy for federal waste management oversight. Basically, this is a plan for transition from increased oversight associated with the spill back to the routine oversight conducted by state, local and tribal agencies. The waste management oversight exit strategy should address the oversight activities performed during spill response, who performs them, and the frequency, and then the proposed transition of these activities back to their normal routine prior to the SONS. Typically, this involves a transition of all activities back to the state in which these facilities are located. The transition plan should be attached to the overall waste management plan.

**SECTION 6.0 COMMUNITY OUTREACH & COMMUNICATIONS**

Community outreach and communications are a key part of effective waste management operations during a SONS and should be a part of the waste management plan. Community outreach issues related to waste management may include environmental justice concerns, informing the public about waste management operations, establishing processes that allow the public to communicate concerns about waste management operations, and addressing those concerns. While a responsible party may conduct some of this community outreach and communication, federal, state and local waste management officials can expect to be involved in these activities and should have plans in place ahead of time that address how they intend to meet these waste management related community outreach and communication issues.

**Waste management community outreach activities**
The EPA has decades of experience in community relations associated with oil and hazardous waste responses around the country. This experience has shown the importance of this function to the overall success of environmental cleanup actions. The same is true for a response to a SONS, with the main differences being that the number of people involved is sometimes much greater, and the demand to respond quickly to requests for information from officials, the media, and public is tremendous. Having processes and plans in place to handle this magnitude of effort will enhance the success of a response. A waste management community outreach plan may include the following objectives:

- Identify and assess individual community information needs related to waste management operations and respond appropriately with relevant information and actions;
- Seek the participation of local elected officials and other community leaders in community outreach efforts related to waste management operations;
- Identify stakeholders that should be kept informed and engaged on an ongoing basis during waste management operations;
- Develop accurate and timely waste management information to be disseminated to the community in a variety of methods and languages, including print and a publically accessible website;
- Identify the appropriate tools and personnel to reach out to key stakeholders; and
- Implement appropriate processes to respond in a timely manner to any potential concerns or complaints from the communities affected about waste management operations.

**Waste management communications**

A waste management communications plan should also be developed as part of the waste management plan. Past major oil spills have shown that federal, state, local, and tribal waste management representatives, as well as other agencies, spend thousands of hours in Emergency Operations Centers, Incident Command Posts, joint field offices, public meetings, and other venues responding to numerous requests for waste management related information. This includes requests from senior leadership throughout federal, state, local, and tribal governments, as well as from Incident Commanders, Emergency Operations Centers (EOCs), the public, and the media. Due to the magnitude of this effort, a strategy should be developed for communications as early as possible to ensure the proper coordination and flow of timely and accurate information. This involves close coordination and communication between the waste management resources in Emergency Operations Centers; the FOSC in the Incident Command, as well as the Incident Command Planning and Operations Section Chiefs; the Public Information Officer; and, state, local and tribal waste management officials. A waste management communications plan template should establish these lines of communications and expectations for information in the form of situation reports, media inquiries, and requests for information from Incident Commanders and senior leaders ahead of an event. Communication procedures and processes can be developed, documented, and demonstrated to work during training and exercises to ensure that they will work in a real incident. In addition, frequently
asked questions and answers should be included in the waste management plan. Fact sheets that provide information on specific waste types, waste facilities, or waste management operations are another effective communications tool.\textsuperscript{15} It may be useful to have generally anticipated questions and information pre-scripted and coordinated ahead of time and attached to the waste management communications plan template. It should be translated into alternative languages used at the incident location to ensure inclusiveness.

**SECTION 7.0 HEALTH & SAFETY CONSIDERATIONS**

Health and safety of responders take on an increased importance during waste management operations that are part of a SONS response because of the amount of waste generated; the potential hazards from waste management activities and from the use of petroleum related compounds, dispersants, detergents, disinfectants, fumigants, and degreasers; the length of time of the response; the large geographic area; the large number of facilities and equipment; and the number of response personnel (federal, state, local, contractors) involved. In addition, response actions conducted under the NCP\textsuperscript{16} must comply with the provisions of the Occupational Health and Safety Administration’s (OSHA’s) Hazardous Waste Operations and Emergency Response (HAZWOPER) Standard, under 29 C.F.R. §§ 1910.120 and 1926.65. These health and safety provisions apply even though some of the waste may not be considered hazardous waste under the RCRA or applicable state law.

OSHA’s HAZWOPER regulations require employers to have detailed Health and Safety Plans (HASP) to protect workers involved in cleanup operations in accordance with the NCP. As a result, a waste management HASP needs to be prepared that addresses the potential hazards from handling waste contaminated with oil or by products of materials utilized in the response to the SONS. The OSHA goals include ensuring that these workers receive appropriate briefings, training, and protective equipment for the potential hazards and exposures that exist during waste management operations. A HASP for waste management operations associated with a SONS response should consider the following items:

\begin{itemize}
  \item a. Situational overview of the SONS;
  \item b. Key personnel involved and contact information;
  \item c. Hazard assessment of all waste management operations and potential exposures;
  \item d. Training requirements associated with waste management operations;
  \item e. Personal protective equipment (PPE) requirements associated with each specific waste management operation;
  \item f. Monitoring and management of temperature extremes;
  \item g. Medical surveillance requirements;
  \item h. Exposure monitoring and air sampling;
\end{itemize}

\textsuperscript{15} Fact Sheet on Oil Clean-up Waste Disposal, MS Department of Environmental Quality; http://www.deq.state.ms.us/medq.nsf/pdf/Main_WasteDisposalFactSheet/$File/Waste%20Disposal%20Fact%20Sheet%202.pdf?OpenElement

\textsuperscript{16}40 CFR 300.150.
i. Site safety control measures;
j. Decontamination and waste management operations;
k. Emergency Response/Contingency Plan;
l. Confined space entry;
m. Spill containment;
n. Documentation requirements;
o. Material Safety Data Sheets for chemicals utilized during waste management operations; and
p. HASP coordination and approval.

Many resources exist to assist in the development of a HASP for a SONS including resources from the National Institutes of Environmental Health Sciences\textsuperscript{17} and OSHA. OSHA has developed many fact sheets and information applicable to an oil SONS which is discussed further in the waste management tools and resources section. Emergency managers, planners and responders should be aware of the differences between OSHA’s and EPA’s HAZWOPER Standard as it applies to uncompensated workers and volunteers and ensure those are reflected in the appropriate and applicable waste management HASPs.\textsuperscript{18}

**RECOMMENDED WASTE MANAGEMENT PLAN ATTACHMENTS**

The sections above constitute the main elements of a Waste Management Plan. In addition to these, most emergency response plans contain a “toolbox” of information in attachments to the main plan. These attachments often represent key information items that are important enough to have available before an event occurs versus having to develop it during an incident.

The following are useful attachments recommended for a SONS Waste Management Plan. These items have been useful in past major oil spill responses and, if prepared ahead of time, can greatly assist in the response and recovery efforts associated with a SONS.

- Waste Management Facility Assessment Checklist
- Waste Management Oversight Exit Strategy/Transition Plan
- Maps & Tables of Approved Oil Reclamation and Waste Management Contractors & Facilities (Contacts, Capabilities/Capacities, Waste Acceptance Criteria, Costs, Pre-approved contracts, etc.)
- Waste Staging/Storage/Decontamination Area Location Maps (Construction Materials, Equipment Needs, Operational & Spill Control Procedures, Site Closeout Checklist)
- Waste Management Documentation/Tracking Forms (Waste Profiles, Manifests, ICS Forms & Reporting Format)
- Waste Management Oversight Reporting & Cost Reimbursement Forms
- Individual State Requirements, Emergency Declaration/Orders, etc

\textsuperscript{17} Oil Spill Cleanup Training Tool, NIEHS; \url{http://tools.niehs.nih.gov/wetp/index.cfm?id=2495}
\textsuperscript{18} Training Oil Spill Response Workers under OSHA’s HAZWOPER Standard, 2010; \url{http://www.osha.gov/Publications/3172/3172.html}
WASTE MANAGEMENT PLANNING TOOLS AND RESOURCES

This section describes some valuable waste management tools and resources that are important to be aware of before a SONS. These tools and resources have been developed to assist emergency managers, planners and responders, as well as Incident Commanders and waste management officials, during the waste management decision making process involved in a SONS response. Many of these resources and tools have been developed or updated to address gaps in capabilities identified by stakeholders in the emergency response community and are frequently updated. A short description and additional information on each is presented:

Waste management and disposal decisions: U.S. EPA’s National Homeland Security Research Center developed the “Incident Waste Assessment System and Tonnage Estimator” (I-WASTE) to assist individuals responsible for making decisions associated with handling, transport, treatment, and disposal of wastes from different incidents. The I-WASTE is location-specific to help identify specific facilities and contacts for disposal. The I-WASTE provides quick reference to technical information, regulations, and other information to provide decision makers with assistance in guiding waste management decisions that are important for the protection of public health, first responders, and the environment. Access to the I-WASTE can be requested through the sign on page at: http://www2.ergweb.com/bdrtool/login.asp.

Waste management information: U.S. EPA’s Office of Resource Conservation and Recovery maintains the website for “Waste Management from Homeland Security Incidents,” found at http://epa.gov/waste/homeland/. Homeland security incidents include incidents requiring a national response (e.g., SONS); acts of terrorism perpetrated with, for example, radiological dispersal devices or chemical or biological warfare agents; large-scale natural disasters, such as Hurricane Katrina; and animal disease outbreaks. This site provides waste management information that can be used by emergency managers, planners, and responders in planning before a homeland security incident occurs, and in decision-making during and after an incident occurs.

Tracking: DrumTrak is a software tool designed to assist in the process of drum and container management. It captures physical drum data (drum type, closure, layers, location, markings, etc.). In addition, DrumTrak processes analytical results to determine hazardous characteristics and assists users in creating bulk groups for disposal. http://www.ertsupport.org/DrumTrak_Home.htm

Transportation options: U.S. DOT hosts a Hazardous Materials Information Center (HMIC) which can be reached at 1-800-467-4922. The HMIC can provide help on use of the DOT’s Hazardous Materials Regulations 49 CFR Parts 100-185. The specific regulations pertaining to packaging, shipping, and transport of hazardous materials can be found in 49 CFR Parts 171-180. http://www.phmsa.dot.gov/hazmat/info-center

Hazardous waste treatment, storage, and disposal facilities regulations: This web-based document serves as a user-friendly reference in locating and understanding the current RCRA hazardous waste treatment, storage, and disposal facility (TSDF) regulations. The information is organized by the type of hazardous waste management activity, which encompasses hazardous waste treatment, storage, and disposal, and includes information on containers, incinerators, landfills, land treatment, surface impoundments, tank systems, and waste piles. This
A reference can be an important resource in developing a waste management plan for hazardous waste streams. A copy of this document can be found at: http://www.epa.gov/epawaste/hazard/hsd/permit/hsd-reg/hsdf-ref-doc.pdf

**Public health emergencies:** The Centers for Disease Control and Prevention has a website on Emergency Preparedness and Response. This website is a source of information and resources for preparing for and responding to public health emergencies. This site keeps the public informed about public health emergencies and provides vital information on those emergencies. This site is located at: http://www.bt.cdc.gov/. The Agency for Toxic Substances and Disease Registry (ATSDR), is another federal public health agency of the U.S. Department of Health and Human Services. ATSDR serves the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and diseases related to toxic substances. There website also has valuable information on emergency response and is located at: http://www.atsdr.cdc.gov/.

**Emergency preparedness and response:** The OSHA Emergency Preparedness and Response website highlights OSHA standards, preambles to final rules, directives (instructions for compliance officers), official letters of interpretation of the standards, other documents, and other federal standards related to emergency preparedness and response. This site is located at: http://www.osha.gov/SLTC/emergencypreparedness/

**Oil spill response:** The Oil Spill Solutions site provides a large quantity of useful information on the subject of oil spill responses. The developer of the website has responded to some of the world’s largest oil spills for over 30 years, covering spills from oil tankers, offshore platforms, and pipelines onshore and offshore. The site is located at: http://oilspillsolutions.org/

**Oil spill response:** The International Petroleum Industry Environmental Conservation Association (IPIECA) is the global oil and gas industry association for environmental and social issues. IPIECA is the only global association involving both the upstream and downstream oil and gas industry on environmental and social issues. The IPIECA has many publications dealing with waste management, contingency planning, as well as health and safety associated with oil spill response. The site is located at: http://www.ipieca.org/.

**Technical advice:** The International Tanker Owners Pollution Federation (ITOPF) provides technical advice and information on all aspects of pollution response and the effects of spills on the marine environment. Their technical services include on-site clean-up advice, pollution damage assessment, assistance in spill response planning, and the provision of training and information. ITOPF has many technical publications including information on spills involving oil and chemicals. The site is located at: http://www.itopf.com/.

**SUMMARY**
Experience in responding to major oil spills (i.e., Deepwater Horizon Oil Spill) as well as major natural and man-made incidents (e.g., anthrax letters, Hurricane Katrina, Japanese tsunami and nuclear power plant incident) over the past decade has continued to show the importance of pre-event waste management planning as a measure of being prepared to respond to major incidents like a SONS. These experiences have shown that many waste management planning elements are similar regardless of the type of incident and can be planned for ahead of time, and then tailored to the site-specific incident. The common elements that drive the need for planning include: larger quantities of waste, wider area of impact, the need for community engagement, and the reality that large scale incidents quickly draw greater public scrutiny as well as national and international media attention.

Waste management planning is a dynamic process and involves a great deal of complexity and integration of people, processes and systems. This framework for a model waste management plan for a SONS is intended to build upon the lessons learned from major incidents in the past and to identify those planning elements needed to improve waste management preparedness for major incidents in the future. Even though SONS may not occur frequently, the elements of this planning process can assist a community in being prepared for other major natural and man-made incidents that involve the same waste management planning elements. Effective pre-event waste management planning can lead to a more timely and cost effective response to and recovery from major incidents such as SONS.

EPA hopes to continue to improve upon waste management planning for incidents like a SONS. As a result, we are interested in your feedback so that we can continue to improve upon this framework as well as develop other waste management tools and resources. To contact us, the U.S. EPA’s Office of Resource Conservation and Recovery maintains the website for “Waste Management from Homeland Security Incidents,” found at http://epa.gov/waste/homeland/. Comments can be submitted to us directly through that website or alternatively to Mr. Mario Ierardi, (703) 308-8894, at EPA’s Office of Resource Conservation and Recovery.

**3271 Disposal Unit**
- Direct the collection, temporary storage, transportation, recycling, and disposal of recovered wastes.
- Estimate the volume of waste that may be recovered and ensure adequate resources and logistics support are provided.
- Manage temporary storage sites and prevent secondary discharges or cross contamination.
- Confirm the laboratory results characterizing the wastes as hazardous or non-hazardous and prepare required RCRA manifests as required.
- Confirm the capacities of recycling or disposal sites.

**3272 Disposal Procedure**
- Federal, State and local laws/regulations;
- Volume of oil or hazardous substance for disposal;
- Identify disposal locations (onsite vs. offsite);
- Obtain necessary permits;
- Secure transportation for product disposal;
• Outline disposal plan.

3273 Disposal Guidance

In addition to the value of the product, liability for damage caused by spilled product, and the cost of cleanup, the cost of disposal is good reason to attempt to prevent spills. Such factors also give good reason to quickly eliminate the source of an accidental release and to contain and recover for use as much as possible of the spilled product.

The Resource Conservation and Recovery Act (RCRA), found in 40 CFR 260-266 & 270, is intended to promote the protection of health and the environment, and to conserve valuable material and energy resources by providing guidelines for solid waste collection, transportation, separation, recovery, and disposal practices and systems.

Currently, this plan discusses only the disposal of oiled waste. Disposal procedures for hazardous waste are found in the Northeast Florida Comprehensive Emergency Management Plan for Hazardous Materials.

3273.1 Florida

The 1990 Florida Legislature enacted major changes to the State's oil spill response and cleanup laws. Among the changes was the following directive to the Florida Department of Environmental Protection (FDEP) concerning the disposal of oil spill cleanup generated debris:

Chapter 376. 304 (2) Florida Statutes states:

The Department of Environmental Protection is authorized to review and analyze the disposal materials or by-products used or resulting from the cleanup of the release of pollutants in the waters of the state. Such materials that are determined by the Department not to require extraordinary handling or disposal requirements may be designated for disposal in nearby existing, local government, solid waste disposal facilities where such facilities are determined to be designed and operated in a manner where disposal of such materials would not constitute an unreasonable risk to public health and the environment. Such designation by the Department shall not be disallowed by actions of the local government responsible for operating the solid waste disposal facility. The designation by the Department of a local government's solid waste facility as the location for disposing of materials and by-products resulting from the activities essential to the cleanup of pollutants in the waters of the state shall constitute final agency action subject to review pursuant to chapter 120, Florida Statutes.

Pre-Designation of Solid Waste Facilities for Debris Disposal:
In order to be prepared to properly manage the debris that could be generated from the cleanup of any significant or catastrophic release of pollutants in the waters of the state, the FDEP will pre-designate all suitable municipal solid waste facilities, coastal and inland, that are in compliance, and meet screening criteria developed in the "Final Report of Oil Spill Debris Disposal Study", for potential use as debris staging areas and disposal of suitable waste from the debris. This list of predesignated facilities will be maintained and updated on an annual basis.

In The Event of a Significant Spill:
The nearest designated facility, or several facilities if necessary, would be utilized as the recommended staging area for segregation and stockpiling of debris, unless a suitable commercial or private facility is available and preferred by the Responsible Party, or if the spill debris can be staged in the immediate vicinity of the spill affected area, such as on the beach above high water.

The FDEP Emergency Response Section (904-256-1700 (after hours via the State Warning Office at 800-320-0519) will provide guidance to the Responsible Party and the Federal On-Scene Coordinator during the spill cleanup operations so that the debris collected is segregated, to the extent possible, into categories of waste disposal method.
As much of the waste debris, as can be determined, will be directed to appropriate facilities for disposal. The remaining debris will be sent to the selected staging area(s) for further characterization and storage, while additional waste disposal options are being reviewed.

- Debris suitable for disposal in solid waste facilities should first be directed to those facilities in the county or counties experiencing the spill.
- If the amount of debris is such that no single facility could manage it properly, the FDEP will recommend additional nearby facilities to share the burden of the waste.
- The FDEP District Waste Program Administrator will designate a lead District contact for the duration of the cleanup and disposal effort.
- The FDEP Emergency Response Section will designate a lead disposal contact for the Federal on Scene Coordinator (FOSC) and the Responsible Party's representative.
- A list of privately owned Landfills will also be provided to the FOSC and the Responsible Party.
- The Final Report of Oil Spill Debris Disposal Study should be used as a reference for determining suitable facilities for oil spill debris disposal.
- The Guidelines for Assessment and Remediation of Petroleum Contaminated Soils should be used as a reference regarding the level of contamination that is suitable for municipal landfill disposal.
- A Directory of Refuse to Energy Facilities, and approved Thermal Treatment Facilities with the appropriate contact persons and telephone numbers will be maintained to assist in predetermining the types and volumes of waste acceptable at these facilities. A plan for establishing emergency permitting procedures for these facilities will be developed in conjunction with the Division of Air Resources Management.
- Guidelines are being developed for the appropriate use of soil washing technology and bioremediation.

**General Disposal Guidelines:**

- Liquid waste petroleum products - recycle or reuse.
- Liquid waste petroleum product and water mixture - oil and water separator, then:
  - Oil to recycler or refiner / water to POTW.
- Oil contaminated organic debris (sorbents, wood, plant material) - Refuse to Energy or Thermal Treatment Facilities.
- Oil contaminated sand, (saturated) - Thermal Treatment Facility or soil washing technology.
- Disposal options are described by the "Guidelines for Assessment and Remediation of Petroleum Contaminated Soil."
- Oil contaminated sand, (not saturated) - Designated Landfill to be used as cover material. Also should follow "Guidelines for Assessment and Remediation of Petroleum Contaminated Soil."

**3273.2 Georgia**

The Georgia Hazardous Waste Management Act establishes the requirements for management of both hazardous and non-hazardous wastes in the State of Georgia. Georgia Environmental Protection Division (EPD), (404) 362-2684 is the State Department responsible for oversight and enforcement of the Hazardous Waste Management Act. For Brunswick please contact (912) 264-7284, Emergency Response number (706) 792-7744. For additional information please go to [www.gaepd.org](http://www.gaepd.org).

In the State of Georgia several disposal options are available for the disposal of contaminated soils and materials. These options are contingent upon the amount of Total Petroleum Hydrocarbons (TPH) in the contaminated soil. The State has established a target TPH value of 100 ppm. For those contaminated soils that have TPH values less than 100 ppm, disposal at a permitted landfill with a liner and leachate collection system is acceptable as daily cover. Most counties within the state have at least one landfill, but most of these landfills do not contain a liner or leachate collection system.

Contaminated soils with TPH values less than 10 ppm are considered recovered materials and are no longer considered solid waste, unless discarded in a manner which creates a threat to human health or the environment.
a recovered material these soils may be recycled or reused in a beneficial manner. If the remediation facility disposes of these soils as opposed to beneficially reusing them, then the facility must obtain a solid waste-handling permit from the Division.

Those soils that possess TPH levels in excess of 100 ppm can only be disposed of at an EPD approved facility. The facility may be either a landfill with a liner and a leachate collection system or a permitted asphalt plant. At no time may any free liquids or hazardous waste be disposed of at any of these facilities. Equipment used in petroleum clean up operations should also be taken to a lined landfill for disposal.

As the accompanying document describes, only petroleum contaminated soils from underground storage tanks are deferred from regulation under the Hazardous Waste Management Act. All contaminated soils from other sources must be tested to document that they are non-hazardous. Both generator and disposal facility are responsible under state and federal laws to ensure that these soils are non-hazardous.

While the State of Georgia recommends that non-hazardous petroleum contaminated soils may be disposed of at an EPD permitted solid waste handling facility, each facility is responsible for ensuring compliance with its permit. Each permit issued in the State is facility specific. While a lined landfill in Atlanta may be permitted to accept petroleum contaminated soils with up to 500 ppm TPH, a landfill in another location of the state may only be allow to accept soils with up to 200 ppm TPH. Prior to soil transport to any facility, the generator should contact the landfill or asphalt plant and receive direction as to what specific criteria the facility will require for disposal.

The Guidance Document listed below has been prepared by the Georgia Underground Storage (UST) program. Though prepared by the UST program to address UST facilities, all of EPD uses this document to maintain consistency throughout the State. Any deviation from this document without prior approval from the EPD will constitute a violation of State law. Questions regarding disposal of petroleum-contaminated soil from UST facilities should be directed to the UST program in Atlanta at (404) 656-6905. When oils are found to be hazardous, disposal questions should be directed to the Hazardous Waste Branch in Atlanta at (404) 362-2684.
GUIDANCE DOCUMENT
Facilities Accepting and Processing Petroleum Contaminated Soil

Asphalt processing facilities and other soil remediation facilities are applying for modifications to their existing air quality permits or for new permits in order to accept and process petroleum contaminated soil. These amended or new permits generally allow these facilities the option of processing non-hazardous contaminated soil, but prevent the permit from processing any petroleum contaminated soil until they have been issued a Solid Waste Handling Permit or receive written notification from the Land Protection Branch that no permit is required.

No hazardous waste may be processed at these facilities. Since only petroleum contaminated soils from regulated underground storage tanks are currently deferred from regulation under the Hazardous Waste Management Act, all soils from other sources must be tested to document they are non-hazardous. By law, the waste generator must make this determination, but the facility should verify that the soil is non-hazardous before accepting it for processing.

Such facilities are exempt from solid waste handling regulations, provided the facility can furnish documentation verifying they are operating in accordance with the regulations applicable to a recovered materials facility as defined in the Rules for Solid Waste Management, Chapter 391-3-4-. 04(7).

Documentation must include proof that the facility has known markets for the material to be processed and that equipment is available to do any required processing. Additionally, the facility must show that 60 percent by weight or volume of the petroleum contaminated soil received is sold, used, reused, or recycled, thus diverting or removing it from the solid waste stream, in the previous 12 months. Any accumulation of processed soil without proof that adequate markets exist for its sale, use, reuse, or recycling, or without possessing the necessary equipment to process the soils, constitutes solid waste handling, regardless of the 60 percent rule. It is the permittee's responsibility to maintain complete and accurate records to demonstrate adherence to the recovered materials classification.

Currently approved reuses of non-hazardous petroleum contaminated soils include hot or cold asphalt products, road base beneath asphalt and, under limited conditions, landfill daily cover. Remediated soils used for road base and placed in depths exceeding 24 inches will be considered fill material rather than road base.

Remediated soil not exceeding 100 (ppm) TPH and 20 (ppm) total BTEX may be used as daily
cover at an EPD approved municipal solid waste landfill with a liner and leachate collection system, meeting all requirements of the Georgia Solid Waste Management Act and Rules for Solid Waste Management, Chapter 391-3-4-. 07(1)(1) and (3)(c).

Landfilling of non-hazardous petroleum contaminated soils having in excess of 100 (ppm) TPH and 20 (ppm) total BTEX is acceptable only at EPD approved municipal solid waste landfills constructed with a liner and leachate collection system in compliance with all requirements of the Georgia Solid Waste Management Act and the Solid Waste Management Rules.

Non-hazardous petroleum contaminated soils remediated to certified non-detect levels of 10 (ppm) TPH and 1 (ppm) total BTEX will be classified as a recovered material and no longer considered solid waste, unless discarded in a manner which creates a threat to human health or the environment. If the soil remediation facility disposes of processed soils as opposed to beneficially reusing or recycling them as specified above, then the soil remediation facility must obtain a solid waste handling permit before processing such soils.

Any facility claiming to be a reclaimed materials facility and found not to qualify as such upon investigation by the Division, will be considered in violation of the Comprehensive Solid Waste Management Act for operating without a permit and subject to enforcement action.

Any facility classified as a recovered materials facility must ensure that the storage of petroleum contaminated soils prior to processing does not impact the ground or surface waters through leaching or contaminated runoff.

### 3280 Decontamination Group

The Decontamination Group is responsible for decontamination of personnel and response equipment in compliance with approved statutes. Responsibilities include:

- Identify decontamination needs and provide resources to accomplish required cleaning and decontamination of personnel and equipment.
- Identify resource and logistics needs to accomplish decontamination requirements.

### 3290 Dispersants

See section 1640 Dispersant Pre-Approval/Monitoring/Decision Protocol.

### 32100 In Situ Burning

See section 1650 In-situ Burn Approval/Monitoring/Decision Protocol.

### 3300 Emergency Response Branch

The Emergency Response Branch is responsible for overseeing and implementing emergency measures to protect life, mitigate further damage to the environment, and stabilize the situation. Refer to Appendices 9100 Emergency
3310 Oil Discharge Classification

The following classifications of oil discharges serve as guidance for the pre-designated Federal OSC as specified under 40 CFR 300.5:

<table>
<thead>
<tr>
<th>Coastal Waters (Coast Guard)</th>
<th>Inland Waters (EPA)</th>
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</thead>
<tbody>
<tr>
<td>Minor: &lt;10,000 gals</td>
<td>Minor: &lt;1,000 gals</td>
</tr>
<tr>
<td>Medium: 10,000-100,000 gals</td>
<td>Medium: 1,000-10,000 gals</td>
</tr>
<tr>
<td>Major: &gt;100,000 gals</td>
<td>Major: &gt;10,000 gals</td>
</tr>
</tbody>
</table>

NOTE: Any discharge that poses a substantial threat to public health or welfare, or results in a critical public concern shall be classified as a "major discharge."

3320 Hazardous Materials Release Classification

The classification of hazardous substance releases under 40 CFR 300.6 is as follows:

<table>
<thead>
<tr>
<th>Minor</th>
<th>Any release that causes minimal threat to public health or welfare and/or the environment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>All releases other than a minor or major release.</td>
</tr>
<tr>
<td>Major</td>
<td>Any release that causes a substantial threat to public health or welfare, a substantial threat to the environment and/or significant public concern.</td>
</tr>
</tbody>
</table>

3330 Search and Rescue (SAR) Group

The Search and Rescue (SAR) Group is responsible for prioritization and coordination of all SAR resources directly related to the specific incident. Refer to Appendices 9100 Emergency Notifications and 9200 Personnel and Services Directory for additional information.

3340 Salvage Group

The Salvage Group is responsible for coordinating and directing salvage activities related to the incident. Refer to Appendices 9100 Emergency Notifications and 9200 Personnel and Services Directory for additional information.

3350 Marine Firefighting Group

The Marine Firefighting Group is responsible for coordinating and directing all fire fighting activities related to the incident. Refer to Appendices 9100 Emergency Notifications and 9200 Personnel and Services Directory for additional information. In addition, Section 8000 contains the Sector Jacksonville Marine Fire Fighting Contingency Plan.

3360 Hazardous Material Group

The Hazardous Material Group is responsible for coordinating and directing all hazardous material activities related to the incident Refer to Appendices 9100 Emergency Notifications and 9200 Personnel and Services Directory for
additional information. In addition, Section 7000 contains the Hazardous Material Contingency Plan portion of this ACP.

3370 Medical Group

The Medical Group is responsible for coordinating and directing all emergency medical services related to the incident. Refer to Appendices 9100 Emergency Notifications and 9200 Personnel and Services Directory for additional information.

3380 Law Enforcement Group

The Law Enforcement Group is responsible for coordinating and directing all law enforcement activities related to the incident, which include, but are not limited to isolating the incident, crowd control, traffic control, evacuations, beach closures, and/or perimeter security. Refer to Appendices 9100 Emergency Notifications and 9200 Personnel and Services Directory for additional information.

3400 Air Operations Branch

The Air Operations Branch is responsible for preparing and implementing the air operations portion of the Incident Action Plan and providing logistical support to aircraft. Aircraft landing sites information can be obtained through U. S. Coast Guard Air Station Clearwater, FL Operations Center at (727) 535-1437.

3410 Air Tactical Group

The Air Tactical Group Supervisor is primarily responsible for the coordination and scheduling of aircraft operations. Such operations may be intended to locate, observe, and track; support dispersant applications or other response application techniques; or report on the incident situation when fixed and/or rotary-wing aircraft are airborne at the site. The Air Tactical Group Supervisor performs these coordination activities while assets are airborne. The Air Tactical Group Supervisor reports to the Air Operations Branch Director and updates the Situation Unit Leader.

3411 Air Traffic Coordination Unit

- Direct and coordinate air operations as required by the Incident Operations Plan.
- Prioritize and assign air ops missions.
- Request additional aircraft resources and release aircraft when authorized.
- Coordinate ground services and aircraft support.
- Identify additional resources and logistics needs.
- Report on the status of air operations.

3412 Surveillance Unit

- Direct and coordinate air operations missions to conduct oil spill tracking, observation, and remote sensing.
- Coordinate mission tasking with scientific and technical observers.
- Identify additional resources and logistics needs.
- Report oil spill tracking, observation, and remote sensing results and coordinate observations to direct operational activities.

**3413 Applications Unit**

- Conduct air operations missions to apply dispersants, chemical countermeasures, bioremediation, or other alternative response technologies as directed by the Operations Section Chief.
- Identify additional resources and logistics needs.
- Report on the efficacy of alternative response technology applications.

**3420 Air Support Group**

The Air Support Group Supervisor is responsible for supporting and managing Helibase and Helisport operations and maintaining liaison with Fixed-winged air bases. This includes:
- Providing fuel and other supplies.
- Providing maintenance and repair of helicopters.
- Keeping records of helicopter activity.
- Providing enforcement of safety regulations.

Helicopters during landing, takeoff, and while grounded, are under the control of the Air Support Group's Helibase or Helisport managers. The Air Support Group Supervisor reports to the Air Operations Branch Director.

**3430 Procedures for Temporary Flight Restrictions**

Due to the presence of three major and several regional airports in this area, it is necessary to be aware of possible interference with airspace even for a ‘routine over-flight’. In all cases, the Federal Aviation Administration (FAA) and/or nearest airport that could be affected should be contacted.

NOTAMS or similar advisories can be posted/broadcasted by the FAA to alert aviators of possible environmental hazards. Likewise, response personnel and media engaged in assessment or follow-up surveillance of a spill site, need to be fully aware of FAA or DOD controlled airspace and any hazards or restrictions that may exist.

Links for more info: [http://www.faa.gov/air_traffic/](http://www.faa.gov/air_traffic/) - FAA Air Traffic Control

**3500 Staging Area Manager**

The Staging Area Manager is responsible for managing all activities within the designated staging areas and reports directly to the Operations Section Chief. Refer to Appendices 5321 staging area and 9200 Personnel Services_v1.6 for additional information.

**3510 Staging Area Safety and Security**

[RESERVED FOR FUTURE AREA COMMITTEE DEVELOPMENT]
3600 Wildlife Branch

The Wildlife Branch is responsible for minimizing wildlife losses during spill response, coordinating early ground and aerial reconnaissance of wildlife at the spill site, employing wildlife hazing measures per the IAP, and recovering and rehabilitating impacted wildlife. Rehabilitation activities shall be coordinated through the Unified Command (UC). The State and Federal OSC, working with the responsible party (if applicable), will provide guidance to the Operations section to ensure that all wildlife concerns of the public and appropriate trustees are addressed. Early initiation of wildlife rehabilitation activities within the Operations section will ensure adequate mobilization of staff, equipment and other applicable resources. The Wildlife Operations branch will be responsible for providing licensed, experienced rehabilitation personnel to coordinate and supervise all collection and rehabilitation activities. Untrained volunteers shall be trained and supervised by licensed rehabilitation personnel on the proper handling of wildlife as well as safety training including the use of personal protective equipment. Refer to http://www.rrt4.nrt.org/ for best responses for Wildlife.

3610 Wildlife Recovery Group

The Wildlife Recovery Group is responsible for coordinating the search, collection and field tagging of dead and lives impacted wildlife and transporting them to the processing center. Responsibilities include:
- Direct, coordinate, and conduct wildlife recovery and capture operations.
- Maintain a central clearing point to direct recovered wildlife to appropriate rehabilitation facilities.
- Maintain an evidence, tagging, and storage procedure for all wildlife recovered.
- Manage the capture, triage, first aid, and transportation of recovered wildlife.
- Provide training and briefing on actions and notifications required when response workers or members of the public encounter distressed wildlife.
- Identify resources and logistics support requirements.
- Report on wildlife recovery operations.

3611 Wildlife Recovery Operations/Procedures

[RESERVED FOR FUTURE AREA COMMITTEE DEVELOPMENT]

3612 Recovery Processing

[RESERVED FOR FUTURE AREA COMMITTEE DEVELOPMENT]

3613 Carcass Retrieval and Processing

[RESERVED FOR FUTURE AREA COMMITTEE DEVELOPMENT]

3620 Wildlife Rehabilitation Group

The Wildlife Rehabilitation Group is responsible for receiving oiled wildlife at the processing center; recording essential information; collecting necessary samples; and conducting triage, stabilization, treatment, transport and rehabilitation of oiled animals. Responsibilities include:
- Establish wildlife rehabilitation centers and conduct rehabilitation operations.
• Maintain documentation on wildlife delivered for rehabilitation.
• Store, document, coordinate laboratory analysis and necropsies, and properly handle deceased wildlife.
• Identify resources and logistics support requirements.

3621 Wildlife Rehabilitation Operations
[RESERVED FOR FUTURE AREA COMMITTEE DEVELOPMENT]

3622 Wildlife Rehabilitation Centers
[RESERVED FOR FUTURE AREA COMMITTEE DEVELOPMENT]

3623 Wildlife Rehabilitation Procedures
[RESERVED FOR FUTURE AREA COMMITTEE DEVELOPMENT]

3700 Inter-agency Memorandum of Agreement
Refer to ACP homepage for Inter-agency MOAs.

MOA discusses the oil spill planning and response activities under the Federal Water Pollution Control Act’s National Oil and Hazardous Substances Pollution Contingency Plan and the Endangered Species Act. The parties to this agreement include the USCG, EPA, Department of Interior Office of Environmental Policy and Compliance, U.S. Fish and Wildlife Service, and NOAA (National Marine Fisheries Service and National Ocean Service).

3800 Reserved
[RESERVED FOR FUTURE AREA COMMITTEE DEVELOPMENT]

3900 Reserved
[RESERVED FOR FUTURE AREA COMMITTEE DEVELOPMENT]
Northeast and Eastern Central Florida
Area Contingency Plan
Annex 4000:
Planning
**4000 Planning**

Refer to the Incident Management Handbook (IMH) for the Incident Command System prepared by USCG, Office of Response (G-MOR-3) for specific information on all duties and positions. Refer to Appendix 9720.100 Incident Management Handbook, for the IMH and 9720.200 ICS Forms Database for ICS forms. This section will only provide a brief overview and information specific to Northeast and Eastern Central Florida.

The Area Committee will be the primary oil spill planning body in Northeast and Eastern Central Florida. This committee and its associated subcommittees will meet periodically to ensure that this plan is accurate, current, and reflects the requirements of all concerned individuals and groups in the Plan's AOR.

Although the Area Committee is the primary local planning body, several other organizations at the regional or national level have significant input to local planning.

The Coast Guard (Sector Jacksonville) will assume the role of principal planner. Input and/or changes to the plan will be passed to the Coast Guard who will ensure that the plan is properly updated. Although there are stated intervals for plan updates, more frequent changes, if needed, are desirable.

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<td>4142 Second Operational Period (4-24 Hours)</td>
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4100 PLANNING SECTION

The Planning Section is responsible for the collection, evaluation, and dissemination of tactical information related to the incident, and for the preparation and documentation of Action Plans. The section also maintains information on the current and forecasted situation, and on the status of resources assigned to the incident. Task Organization includes the Situation, Resource, Documentation, and Demobilization Units, as well as Technical Specialists. The Planning Section Units are shown in Figure 0-1. Refer to Appendices 9100 Emergency Notification, 9200
Personnel and Services Directory, 9300 Draft IAP, 9400 Area Planning Documentation and 9700 List of Response Resources for information necessary to develop the Incident Action Plan.

4110 Planning Section Chief

The PSC is Responsible for collection, evaluation, dissemination and use of information about the development of the incident and status of resources. Information is needed to understand the current situation, predict probable course of incident events and prepare alternative response strategies.

![Planning Section Diagram](image)

Figure 0-1 - Planning Section Diagram
4120 Planning Cycle, Meetings, Briefings, and the Planning Chart

Preparation for the Planning Meeting

Planning Meeting

Tactics Meeting

Operations Briefing

IC/UC Sets Objectives

Execute Plan & Assess Progress

New Op Period Begins

Initial UC Meeting

Incident Brief ICS FORM 201

Initial Response and Assessment

Notifications

Incident/Event

OPERATIONAL PERIOD PLANNING CYCLE

Events most related to assembling an Incident Action Plan (IAP)
4121 Initial Response and Assessment

The period of Initial Response and Assessment occurs in all incidents. Short-term responses, which are small in scope and/or duration (e.g., a few resources working one operational period) can often be coordinated using only ICS Form 201 (Incident Briefing Form).

INCIDENT BRIEFING (ICS Form 201) - During the transfer-of-command process, an ICS Form 201-formatted briefing provides the incoming Incident Commander (IC)/Unified Commander (UC) with basic information on the incident resources and situation. Most importantly, the brief functions as the Incident Action Plan (IAP) for the initial response and remains in force and continues to develop until the response ends or the Planning Section generates the incident's first IAP. It is also suitable for briefing individuals newly assigned to the Command and General Staff as well as for needed assessment briefings for the staff. ICS Form 201 facilitates documentation of response objectives, situational awareness, resource employment and deployment, and documentation of significant actions taken. ICS Form 201 is essential for planning and the effective management of initial response activities.

When: New IC/UC.
Facilitator: Staff Briefing as required.
Attendees: Command and General Staff as required

General Tasks

Incident Commander (IC)
- Obtain incident brief using ICS-201.
- Assess operational requirements.
- Determine organizational and response requirements and objectives.

Operations (OPS)
- Obtain briefing from IC.
- Consider available Contingency Plan.
- Develop strategies and tactics.
- Assemble resources.
- Conduct response using ICS-201.

Planning
If/when activated orders staff.

Logistics
If/when activated orders staff.

Finance/Admin
If/when activated orders staff.

Agenda:
Using ICS Form 201 as an outline, include:

1. Situation (note territory, exposures, safety concerns, etc.; use map/charts).
2. Current priorities.
3. Strategy(s) and tactics.
4. Current organization.
5. Resource assignments.
6. Resources en-route and/or ordered.
7. Facilities established.
4122 Initial Unified Command Meeting

This meeting provides UC officials with an opportunity to discuss important issues prior to joint incident action planning. The meeting should be both brief and documented. Prior to the meeting, parties should have an opportunity to review and address the agenda items. Planning meeting participants will use the results of this meeting to guide the operational efforts prior to the first tactics meeting.

When: The UC is formed prior to the first meeting.
Facilitator: UC Member
Attendees: Only ICs that will comprise the UC

Agenda:
1. Identify UC, based on IMH Chapter 6 criteria.
2. Identify jurisdictional priorities and objectives.
3. Present jurisdictional limitations, concerns and restrictions.
4. Develop a collective set of incident objectives.
5. Agree on incident priorities.
6. Agree on basic organizational structure.
7. Designate the best-qualified and acceptable Operations Section Chief (OPS).
8. Agree on General Staff personnel designations and planning, logistical, and financial agreements and procedures.
10. Agree on cost-sharing procedures.
11. Agree on informational matters.
12. Designate a Unified Command Information Officer.
4123 Unified Command Objectives Meeting

At this meeting the IC/UC will identify/review and prioritize objectives for the next operational period using the ICS Form 202. Objectives from the previous operational period are reviewed and any new objectives are identified.

When: Before the tactics meeting
Facilitator: UC Member
Attendees: UC Members, Command and General Staff as appropriate.

**General Tasks**

**Incident Commander (IC/UC)**
- Develop SMART incident objectives.
- Consider “Best Response”.
- Delegate and provide guidance to Command and General Staff.

**Operations (OPS)**
- May be present if invited.

**Planning**
- May be present if invited.
- Propose draft SMART objectives to IC/UC.

**Logistics**
- May be present if invited.

**Finance/Admin**
- May be present if invited.

**Agenda:**
1. Review/identify objectives for the next operational period (clearly stated and attainable with the resources available, yet flexible to allow members to choose best tactics).
2. Review any open agenda items from initial/previous meetings.
**4124 Tactics Meeting**

This 30-minute meeting creates the blueprint for tactical deployment during the next operational period. In preparation for the Tactics Meeting, the Planning Section Chief (PSC), and OPS review the first stage of response operations or the current IAP situation status information, as provided by the Situation Unit to assess work progress against IAP objectives. The OPS/PSC will jointly develop primary and alternate strategies to meet objectives for consideration at the next Planning Meeting.

When: Prior to Planning Meeting.
Facilitator: PSC.
Attendees: PSC, OPS, Logistics Section Chief (LSC), and Resources Unit Leader (RUL).

AGENDA:
1. Review the objectives for the next operational period and develop strategies (primary and alternatives).
2. Prepare a draft of ICS Form 215 (used in planning meeting) to identify resources that should be ordered through Logistics.
4125 Preparing for the Planning Meeting

During this phase of the Planning Cycle, the Section Chiefs and their associated staff members begin the work of preparing for the upcoming Planning Meeting. Each Section Chief is responsible for ensuring that his/her planning Meeting responsibilities are met. The PSC should facilitate this to the greatest extent possible to ensure that the material, information, resources, etc., to be used or discussed in the Planning Meeting are organized and prepared. There are to be no surprises in the Planning Meeting.

When: After the Tactics Meetings
Facilitator: PSC

<table>
<thead>
<tr>
<th>General Tasks</th>
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</thead>
<tbody>
<tr>
<td>Incident Commander (IC/UC)</td>
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<tr>
<td>Provide guidance/clarification.</td>
</tr>
<tr>
<td>Monitor on-going operations.</td>
</tr>
<tr>
<td>Operations (OPS)</td>
</tr>
<tr>
<td>Continue Operations.</td>
</tr>
<tr>
<td>Prepare for Planning Meeting</td>
</tr>
<tr>
<td>Planning</td>
</tr>
<tr>
<td>Facilitate General Staff and attendees’ preparations for Planning Meeting.</td>
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<tr>
<td>Publish/distribute meeting schedule and ensure attendees know roles.</td>
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<tr>
<td>Allow no surprises.</td>
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<tr>
<td>Logistics</td>
</tr>
<tr>
<td>Prepare for Planning Meeting.</td>
</tr>
<tr>
<td>Verify support requirements.</td>
</tr>
<tr>
<td>Finance/Admin</td>
</tr>
<tr>
<td>Prepare for Planning Meeting.</td>
</tr>
<tr>
<td>Verify financial and administrative requirements.</td>
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</table>
4126 Planning Meeting

This meeting defines incident objectives, strategies, and tactics and identifies resource needs for the next operational period. Depending on incident complexity, this meeting should last no longer than 45 minutes. This meeting refines objectives and priorities, identifies and solves problems, and defines work assignments and responsibilities on a completed ICS Form 215 (Operations Planning Worksheet). Displays in the meeting room should include Objectives ICS Form 202 for the next period, large sketch maps or charts (clearly dated and timed), a poster-sized ICS Form 215, a current resource inventory prepared by the Resource Unit, and current situation status displays prepared by the Situation Unit. After the meeting, ICS Form 215 is used by the LSC to prepare the tactical and logistical resource orders, and used by the PSC to develop IAP assignment lists.

When: After the UC and Tactics Meetings
Facilitator: PSC
Attendees: Determined by IC/UC, generally IC/UC, Command Staff, General Staff, Air Operations Branch Director (Air Ops), the RUL, Safety Officer (SO), and Technical Specialists, as required.

AGENDA:

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<tr>
<td>IC/UC</td>
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<td>OPS</td>
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<td>OPS</td>
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<td>LSC</td>
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<tr>
<td>LO</td>
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<td>SO</td>
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1. State incident objectives and policy issues.
2. Briefing of situation, critical and sensitive areas, weather/sea forecast, and resource status/availability.
3. State primary and alternative strategies to meet objectives.
4. Designate Branch, Division, and Group boundaries and functions as appropriate, use maps and ICS form 215.
5. Specify tactics for each Division, note limitations.
6. Specify resources needed by Divisions/Groups.
7. Specify operations facilities and reporting locations and plot on map.
8. Develop resources, support, and overhead order (orders).
9. Consider support: communications, traffic, safety, medical, etc.
10. Contributing organization/agency considerations regarding work plan.
11. Safety considerations regarding work plan.
### 4127 Incident Action Plan (IAP) Preparation

Attendees immediately prepare their assignments for the IAP. The deadline will be early enough to permit timely IC/UC approval and duplication of sufficient copies for the Operations Briefing and for overhead.

When: Immediately following the Planning Meeting, the PSC assigns the deadline.
Facilitator: PSC

<table>
<thead>
<tr>
<th>Media considerations regarding work plan.</th>
<th>IO</th>
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<tbody>
<tr>
<td>Report on expenditures and claims.</td>
<td>F/ASC</td>
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<tr>
<td>Finalize and approve work plan for the next operational period.</td>
<td>IC/UC</td>
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#### Common Components

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<tr>
<td>Incident Objectives (ICS form 202).</td>
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<tr>
<td>Organization List/Chart (ICS FORMS 203/207).</td>
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<tr>
<td>Assignment List (ICS form 204).</td>
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<tr>
<td>Communication Plan (ICS form 205).</td>
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<tr>
<td>Medical Plan (ICS form 206).</td>
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<tr>
<td>Incident Map.</td>
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<tr>
<td>Safety Plan.</td>
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<tr>
<td>Decontamination Plan.</td>
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<tr>
<td>Waste Management or Disposal Plan.</td>
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#### Optional Components (use as pertinent):

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<td>Air Operations Summary (ICS form 220).</td>
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<tr>
<td>Traffic Plan.</td>
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<tr>
<td>Demobilization Plan.</td>
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[Diagram of Incident Action Plan (IAP) Preparation]

**General Tasks**

- **Incident Commander (IC/UC)**
  - Review, approve and sign IAP
  - Provide required information for inclusion into IAP
  - Communicate incident status changes

- **Operations (OPS)**
  - Facilitate General Staff’s IAP input.
  - Ensure assignments and expectations are clear.
  - Provide completed IAP to IC/UC for review/approval.
  - Distribute completed IAP.

- **Logistics**
  - Provide logistics information for IAP.
  - Verify resources ordered.

- **Finance/Admin**
  - Verify financial and administrative requirements for IAP.
4128 Operations Briefing

During this 30-minute (or less) meeting the IAP is presented to the oncoming response organization shift. After this meeting, off-going supervisors should be interviewed by their relief and by OPS in order to further confirm or adjust the oncoming shift's IAP. The cognizant Division/Group supervisor may make shifts in tactics. Similarly, a supervisor may reallocate resources within that division to adapt to changing conditions.

When: About an hour prior to each shift change
Facilitator: PSC
Attendees: IC/UC, Command Staff, General Staff, Branch Directors, Division/Group Supervisors, and Task Force/Strike Team Leaders (if possible), Unit Leaders, others as appropriate.

<table>
<thead>
<tr>
<th>Agenda</th>
<th>Primary Responsible</th>
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<tbody>
<tr>
<td>1. Review IC/UC objectives and changes to IAP.</td>
<td>PSC</td>
</tr>
<tr>
<td>2. Discuss current response actions and last shift’s accomplishments.</td>
<td>OPS</td>
</tr>
<tr>
<td>3. Review weather and sea conditions forecast.</td>
<td>SUL</td>
</tr>
<tr>
<td>4. Division/Group and Air Operations assignment.</td>
<td>OPS</td>
</tr>
<tr>
<td>5. Trajectory analysis.</td>
<td>SUL</td>
</tr>
<tr>
<td>6. Transport, communications, and supply updates.</td>
<td>LSC</td>
</tr>
<tr>
<td>7. Safety message.</td>
<td>SO</td>
</tr>
<tr>
<td>8. Incident Action Plan (IAP) approval and motivational remarks.</td>
<td>IC/UC</td>
</tr>
</tbody>
</table>
4129 Assessing Progress and Debriefing
Following the operation brief, all Section Chiefs will review incident response progress and make recommendations to the IC/UC in preparation for the next UC Objective Meeting. This feedback/information is gathered from various sources, including Field Observers, responder debriefs, stakeholders, etc.

4130 Special Purpose Meetings
Special Purpose meetings are most applicable to larger incidents requiring an Operational Period Planning Cycle, but may be useful during Initial Response and Assessment.

4131 Command Staff Meeting
This meeting coordinates Command Staff functions, responsibilities, and objectives. It is held before the Tactics Meeting. Command Staff (IC/UC, SO, LO, IO) attend.

4132 Command and General Staff (Business) Meeting
This meeting is an opportunity for the Command & General staffs to gather under informal conditions (breakfast/dinner) to discuss developing issues.
4140 Planning Section Objectives

4141 First Operational Period (0-4 Hours)
- Evaluate extent of the incident.
- Initiate incident logs.
- Begin Section stand-up.

4142 Second Operational Period (4-24 Hours)
- Identify and prioritize effected or potentially affected environmentally, archaeologically, and economically sensitive areas. Communicate this information to the Operations Section and Unified Command (UC) to ensure initial efforts minimize or avoid impact to such areas.
- Designate Situation Unit to implement and maintain an incident tracking system.
- Continue evaluating the extent of the incident.
- Forecast probable spill impacts.
- Develop strategic plans for response activities during the 24-48 hour operational period and beyond.

4143 Third Operational Period (24-48 Hours)
- Continue to identify and prioritize sensitive areas.
- Continue tracking incident progress in cooperation with the Operations Section.
- Forecast probable spill impacts.
- Develop strategic plans for response activities for the next few days of the operational period.

4200 SITUATION UNIT
The Situation Unit is responsible for the collection and evaluation of spill information, displaying that info, and forecasting the incident evolution. This responsibility includes the compilation of information regarding the type and amount of oil spilled, the amount of oil recovered, the oil’s current location and anticipated trajectory, and the impacts on natural resources. Refer to Appendices 9710 Sensitive Area and Response Strategies and 9720.400 Inlet Tidal Strategies for information necessary for this Unit.

4210 Situation Display
Various methods may be established for displaying situational information to the UC. The method of choice will depend on availability of resources, the kind of system used (i.e. GIS / MISLE - see section 4240 below), and the command post physical layout.

4220 Weather/Tides/Currents
Seasonal weather patterns may affect the planning and operational aspects of a response. Detailed weather information and forecasts can be obtained from a variety of sources, including the National Weather Service. http://www.nws.noaa.gov/er/lwx
To obtain AOR weather information, including tides and currents, use the US Coat Guard resources contained on the following link: P:\SCC\SCC Homepage\index_files\Page366.htm

4230 Required Interagency Situation Reports
[Reserved for future Area Committee development]

4240 Situation Management Information Technology
This section outlines the various information technology / computerized systems that are most commonly employed by the situation unit during the course of a response.

4241 Geographic Information System (GIS)
The GIS Specialist is responsible for compiling updated spill information and providing various map products to the incident command. Refer to Appendix 9710 for the Response Strategies.

4242 Marine Information for Safety and Law Enforcement (MISLE) System
Commandant (G-MOR), in conjunction with the Coast Guard Research and Development Center and the U.S. Army Corps of Engineers, has developed an integrated crisis management system designed to provide real time (or near-time) response and planning information to a UC. Although still in a prototype stage of development, the system includes electronic forms using a Microsoft Access relational database, a Geographic Information System (GIS) situation display, and a web-based intranet system for disseminating information.

4243 Homeland Security Information Network (HSIN)
[Reserved for future Area Committee development]

4250 Display Processors
Responsible for the display of incident status obtained from Field Observers, resource status reports, aerial and ortho photographs and infrared data. Refer to Appendix 9710 Sensitive Area and Response Strategies for information necessary for this Unit.

4260 Field Observers
Field Observers are responsible for collecting situation information from personal observations at the incident.
4270 Trajectory Analysis Specialists

Trajectory Analysis Specialists are responsible for providing projections and estimates of the movement and behavior of the spill. The specialist will combine visual observations, remote sensing information, computer modeling as well as observed and predicted tidal, current and weather data to form this analysis.

4280 Resources at Risk (RAR) Specialists

RAR specialists are responsible for the identification of resources thought to be at risk from exposure to spilled oil through the analysis of known and anticipated oil movement and the location of natural, cultural and economic resources. Refer to Appendices 9710 Response Strategies and 9720.400 Inlet Tidal Strategies for information necessary for this Unit.

4300 RESOURCES UNIT

The Resources Unit is responsible for the status of all resources (primary and support) at an incident. This is achieved through the development and maintenance of a master list of all resources used during the event. Refer to Appendix 9200 Personnel and Services Directory for information on resources.

4310 Resource Management

This section outlines the responsibilities for members of the resources unit in managing response resources for the Planning Section.

4311 Resource Check-In Recorder

Resource Check-in recorders are responsible for ensuring all assigned resources are accounted for at an incident.

4312 Check-in Procedures

Check-in recorders are responsible for ensuring all personnel are properly accounted for as they report to an incident. This includes field workers, support personnel, and personnel who will be working at the command post.

4313 Volunteer Activity and Recommended Training Checklist

Specific Volunteer Activity and Recommended Training Checklist:

Ensure that Volunteers meet the following criteria:

Volunteers need to be at least 18 years of age;

Be in good health;

Have a current tetanus inoculation if working in the field or with wildlife;
Do not have immuno-compromising illnesses if working with wildlife;

Have a current driver’s license registration and proof of insurance if transporting wildlife or personnel in one’s personal vehicle;

Bird Deterrence or Bird Hazing Activities

___ Volunteers engaged in this activity should attend an 8-hour bird deterrent training workshop.

___ Volunteers using pyrotechnics or firearms should attend 8-hours of firearm safety training and 4-hours of range training.

Volunteers Operating or Riding in Boats

___ Personnel operating boats should be licensed or certified with 24 hour watercraft operator safety training.

___ Boat riders should only ride with certified or licensed operators.

Bird Capture, Field Stabilization, Bird Transport and Bird Washing Activities:

___ Personnel engaged in these activities should attend 16 hours of basic rehabilitation skills training.

___ Personnel engaged in bird washing should attend a 4 hour bird washing skills training session.

Field Teams

___ Certified in First Aid

___ Certified in CPR

Volunteers in Small Aircraft

___ Personnel riding in small aircraft performing field functions such as, bird surveys should complete an 8-hour basic aviation safety-training course.

Criteria for De Minimis status:

The job site is in an area where a qualified person has decided that the exposure potential is expected to remain under Permissible Exposure Limits (PEL),

Health risks from skin absorption are minimal,

Workers have been trained on procedures in the event of an emergency and hazards associated with the hazardous substances in their workplace,

Workers have completed training including topics such as decontamination procedures, heat stress, hypothermia, water safety, and operating procedures, and,

Supervisors have received a minimum of 24 hours of training
4320 Volunteer Coordination and Documentation

Due to the logistical requirements of coordinating volunteers, the response organization must be large enough to support volunteer participation. That is why the use of volunteers may not be appropriate during smaller incident responses. The assignments provided should be low risk. In certain circumstances, volunteers may be used for higher risk activities. A common use of volunteers for man-made or natural disasters include activities such as wildlife cleaning or removal of beach or shoreline debris. These activities, however, require specialized training and in some cases licensing.

The Sector Liaison Officer (LNO) will generally be the first to receive external reports of volunteer interest due to the outreach responsibilities of that position. If volunteer interest exists, the LNO should recommend the establishment of a Volunteer Coordinator (VC) who could be a member of the Coast Guard Auxiliary. The VC plays a critical role in the Unified Command’s (UC) outreach to the public. The VC will normally become part of the Planning Section. The VC will work with the manager or supervisor of the volunteer organizations and the Joint Information Center when a UC is established. Once accepted by the UC, the volunteer organization will be assigned to a specific branch or unit based on incident needs. Representatives from the volunteer organizations will coordinate with the appropriate Branch within the Operations Section and are responsible for coordinating their member activities.

Some of the VC functions may include but are not limited to the following:
Provide a point of contact for all volunteers as well as for all units/agencies needing volunteers. Work with the EOC Liaison to coordinate volunteer activities.

Establish a communication system, including toll-free phone numbers, fax lines and fax machines, phones, a website, and a link to the Command Center. Recruitment of an Amateur Radio Operator should be considered for remote locations.

Create a credentialing system allowing designated volunteers access to the scene. This may come in the form of wrist bands, a letter from Federal On Scene Coordinator or a picture ID. Some responsible parties may have developed their own credentialing system. The system to be used will be developed on a case by case basis. Coordinate with the Public Information Officer (PIO) or Joint Information Center (JIC) to provide notification to the media regarding types of volunteer jobs available and procedures for volunteering, including a toll free phone number or website where more information is available and/or where volunteers can register. It is essential to coordinate dissemination of the toll-free telephone numbers to the public through the UC’s JIC and local PIOs to reduce confusion and ensure consistency of information. When the VC is activated, the UC’s JIC and local PIOs may want to issue a press release with information regarding volunteers.

It is the volunteer AGENCY supervisor’s job to:

Provide proper briefings to the VC Oversee operations as assigned Provide and ensure the proper use of PPE Ensure health and safety of volunteers Ensure that logistics requirements are met Maintain all required documentation
Maintain volunteer credentialing

**4320.1 Memorandum of Understanding between USCG, EPA and Corporation for National and Community Service (CNCS)**

4321 Affiliated Volunteer Organization Resources and Capabilities

In many cases, the Responsible Party (RP) is responsible for the funding of the man made or natural disaster response. In this active role, it is critical that their concerns and limitations on using volunteer organizations are considered. Often RP’s are hesitant to utilize volunteers due to liability and legal considerations. However, the advantages and disadvantages will be discussed and decided upon by the UC, with advice from legal representatives.

The potential use of Affiliated Volunteer Organizations (AVO) and unaffiliated volunteers must be discussed within the Area Committee to clarify how the decision to use volunteers will be made. This must be done during routine Area Committee meetings and revisited again during the onset of an incident. Federal On Scene Coordinator (FOSC) Representatives should drive this discussion. Often, when affiliated volunteers are used, the volunteers are covered under the affiliated organizations liability coverage. If a unilateral UC or Coast Guard decision is made to use affiliated or unaffiliated volunteers, the RP generally has no regulatory obligation to provide support or management resources.

The Oil Spill Liability Trust Fund (OSLTF) is available up to 50 million dollars annually for federal response costs under the Clean Water Act. The OSLTF may be used to pay for volunteer expenses consistent with this authority. FOSCs should communicate with the Coast Guard Commandant office of CG-533 and the National Pollution Funds Center when dealing with issues regarding funding for volunteers.

State volunteer coordinator POC information can be found at:

**Volunteer Florida**

401 S. Monroe St.
Tallahassee, FL 32301-2034

**Contact:** Wendy Spencer
Chief Executive Officer
Phone: 850-921-5172 Email: wendy@volunteerflorida.org
Fax: 850-921-5146 Website: [http://www.volunteerflorida.org](http://www.volunteerflorida.org)

**Florida Citizen Corps**
[http://www.floridadisaster.org/CitizenCorps/Volunteer/Centers.htm](http://www.floridadisaster.org/CitizenCorps/Volunteer/Centers.htm)

County volunteer resource information can be found at the county EOC Emergency Support Function 15 (ESF-15). Listed below are links to the county EOC websites:

- Duval County: [http://www.coj.net/departments/fire-and-rescue.aspx](http://www.coj.net/departments/fire-and-rescue.aspx)


St. Johns County: http://www.sjcemergencymanagement.org/.


Flagler County: http://www.flagleremergency.com/.

Brevard County: http://www.brevardcounty.us/emergencymanagement/home/.

These resources are available for general disaster response, but some may be available for support during oil spill response operations. Additional volunteer resources may become available for specific events. The UC may utilize the Corporation for National and Community Service (CNCS) to manage unaffiliated volunteers (i.e., volunteers who are not associated or pre-registered with a response or relief organization) for responses conducted under the NCP. Listed below are contacts for CNCS:

NCCC Deputy Director for Projects and Partnerships
1201 New York Ave, NW
Washington, DC 20525
202-606-7516

PHIL SHAW
Disaster Service Specialist
202-606-6697 (office)
202-491-2305 (cell)
4322 Health and Safety Training Standards

Managers or supervisors of volunteers shall meet the state and Occupational Health and Safety Administration (OSHA) requirements for the area where they will be used and for the position which they will fill. The National Contingency Plan (40 CFR 300), Appendix E, paragraph 6.0, addresses the use of volunteers and OSHA pamphlet 3172 outlines the training required.

Elements of required and recommended training will vary depending on the tasks of the individuals involved in the response. Training requirements and specific courses vary with level of involvement, agency policy, UC requirements, OSHA and state regulations. Volunteers that do not possess the required training will not be permitted to participate in UC sanctioned response activities. Generally, volunteers who respond to an oil spill incident will not be used in the physical removal of the hazardous substance. The acceptable level of training is outlined below:

At a minimum, volunteers should provide documentation of IS100 and IS700 training before being assigned to duties within the UC. This training is provided free of charge at: [http://training.fema.gov/IS/crslist.asp](http://training.fema.gov/IS/crslist.asp).

Although volunteers are not employees of the volunteer organizations, they will be considered workers and will be required to complete or possess required hazardous substances, safety, and health hazard training per 29 CFR 1910.120(e) if participating in hazardous waste operations (HAZWOPER). This regulation dictates that post-emergency response workers have 40 hours of HAZWOPER training. These 40 hours of training would be difficult and expensive to set up for volunteers. Instead, volunteers can fall under a “De Minimis” exception. Under OSHA Directive CPL 2-2.51 and OSHA Standards Interpretation and Compliance Letters (dated 02/13/1992), “a minimum of four hours [of training] would be appropriate in most situations.” The criteria for De Minimis are:

The job site is in an area where a qualified person has decided that the exposure potential is expected to remain under Permissible Exposure Limits (PEL), health risks from skin absorption are minimal, Workers have been trained on procedures in the event of an emergency and hazards associated with the hazardous substances in their workplace, Workers have completed training including topics such as decontamination procedures, heat stress, hypothermia, water safety, and operating procedures, and, Supervisors have received a minimum of 24 hours of training.

It is the intent of the UC to keep volunteers away from the hazardous substances: however, there may be a time when certain volunteers possess unique skill sets that warrant potential contact with the hazardous substance. The minimum training required for volunteers involved in removal operations should be consistent with the hazardous waste operations standards set forth in 29 CFR 1910.120(e) and (q). If select volunteers are deemed appropriate by the UC to further their services and wish to take a more direct role in spill response operations, they will have to meet the requirements listed below:

29 CFR 1910.120(e)(1)(i) states that all employees working on site (such as but not limited to equipment operators, general laborers and others) exposed to hazardous substances, health hazards, or safety hazards and their supervisors and management responsible for the site shall receive training meeting the requirements of this paragraph before they are permitted to engage in hazardous waste operations that could expose them to hazardous substances, safety, or health hazards. They shall receive review training as specified in this paragraph.
Management and supervisor training, 29 CFR 1910.120(e)(4): On-site management and supervisors directly responsible for, or who supervise employees engaged in hazardous waste operations shall receive 40 hours initial training, three days of supervised field experience (the training may be reduced to 24 hours and one day if the only area of their responsibility is employees covered by paragraphs (e)(3)(ii) and (e)(3)(iii)), and at least eight additional hours of specialized training at the time of job assignment. Specialized training will include topics such as, but not limited to, the employer's safety and health program and the associated employee training program, personal protective equipment program, spill containment program, and health hazard monitoring procedure and techniques.

General site workers, 29 CFR 1910.120(e)(3)(i): General site workers require 40 hours of instruction off the site and a minimum of three days actual field experience under the direct supervision of a trained, experienced supervisor. Volunteers should not be put in situations where they would be considered a general site worker.

Occasional site workers, 29 CFR 1910.120(e)(3)(ii): Occasional site workers require 24 hours of instruction off the site, and a minimum of one day actual field experience under the direct supervision of a trained, experienced supervisor. An example of this category worker is a field observer.

Some states have federally approved state plans outlining health, safety, and training requirements based on HAZWOPER standards. These states are called state-plan states. State plans and their volunteer safety training standards shall have precedence since these plans are approved by OSHA. If volunteer tasks do not require HAZWOPER training, such training should not be conducted or mandated. A list of state-plan states and POCs can be found at: [https://www.osha.gov/dcsp/osp/index.html](https://www.osha.gov/dcsp/osp/index.html).

### 4323 Safe Use of Volunteers

The National Oil and Hazardous Pollution Contingency Plan (NCP) 40 CFR 300 discourages volunteer participation in physical removal activities and limits them to non-hazardous tasks due to the extensive medical surveillance, training and equipment required to participate in physical removal activities. Sector Jacksonville’s policy is that volunteers shall not have direct contact with oil or other hazardous substances.

### 4324 Training

Volunteers involved in the post-emergency response phases of an oil spill will need hazardous materials awareness training. OSHA regulations and 29CFR1900.120 dictate post-emergency response workers have 40 hours of HAZWOPER training. Forty hours of training would be difficult and expensive for volunteers. Instead, volunteers can fall under a “De Minimis” exception. Under OSHA Directive CPL 2-2.51 and OSHA Standards Interpretation and Compliance Letters (dated 02/13/1992), “a minimum of four hours [training] would be appropriate in most situations.” The criteria for De Minimis is:

a) The job site is in an area where a qualified person has decided that the exposure potential is expected to remain under Permissible Exposure Limits (PEL).
b) Health risks from skin absorption are minimal.
c) Workers have been trained on emergency procedures and the hazards associated in the workplace environment.
d) Workers have completed decontamination procedures, heat stress, hypothermia, water safety, and operating procedures training.
e) Supervisors have received a minimum of 24 hours of training.

### 4324.1 Potential Sources of HAZWOPER Training for Volunteers

**Habitat Surveyor:** Sector Jacksonville may deploy these volunteers to assist in the habitat survey of pre and post spill shoreline and riverbank wildlife. Interested volunteers must be able to identify oil on the ground, structures or
on plants versus a non-oiled environment, have a valid driver’s license, be familiar with the local area without the use of street signs, and must attend HAZWOPER training.

**Pre-impact Shoreline and Riverbank Cleanup:** Sector Jacksonville may deploy these volunteers to assist with the ongoing pre-event maintenance and clean-up of coastal areas in an effort to minimize the potential amount of contaminated debris. Interested volunteers must be physically capable of walking, stooping, lifting, and carrying debris repositories. Volunteers must also be very familiar with the local area without the use of street signs, have a valid driver’s license and must attend incident specific USCG orientation.

**Delivery / Runners:** Sector Jacksonville may deploy these volunteers to carry supplies, transport personnel, and other associated duties as assigned, to and from oil-impacted areas or other locations. Interested volunteers must be in good physical condition, have a valid driver’s license, be very familiar with the area without the use of street signs, and must attend incident specific USCG orientation.

**Coast Watcher:** Volunteers are community members who are very familiar with local beaches and can report any changes that may be attributed to the oil spill incident. Interested volunteers must be familiar with the local area and attend on-site safety training.

**Volunteer Coordination:** Sector Jacksonville may deploy these volunteers to set up and manage a Volunteer Reception Center (VRC) or Volunteer Congregation Site. Interested volunteers need experience in dealing with convergent, unaffiliated volunteers. Volunteers must also be in good physical condition, have a valid driver’s license, be very familiar with the local area without the use of street signs, and must attend incident specific USCG orientation as well as three hour VRC training.

**4400 Documentation Unit**

This unit ensures each section maintains and provides appropriate documentation. The Documentation Unit is essential to properly collecting, organizing, and maintaining custody of materials during and following the incident response. Guidance for performing tasks may be found in the ICS Documentation Unit Leader Job Aid at the Online Documents page of the National Strike Force Coordination Center.  


**4410 Administrative File Organization**

Establishing an administrative filing system depends on the complexity of the incident, as well as the potential for future litigation. Typically, the person assigned to the Documentation Unit Leader position will be experienced in the management of such a task. Assistants should review the Job Aid found on the Web Site provided above.
4500 Demobilization Unit

The Demobilization unit is responsible for developing the Incident Demobilization Plan and assisting sections and units to ensure an orderly, safe and cost effective demobilization of personnel and equipment is accomplished from the incident. Refer to 9200 Personnel and Services Directory for more information.

4600 Environmental Health

The Environmental Unit is responsible for environmental matters associated with response including strategic assessment, modeling, surveillance, and environmental monitoring and permitting. The Environmental Unit also prepares environmental data for the situation unit.

4610 Human Health

This section outlines human health resources and sensitivity issues for the shorelines and coastal areas of Northeast and Eastern Central Florida. The Human Health section is organized as follows:

4611 Shoreline/Coastal Residential Population Densities
4612 Drinking Water Intakes
4613 Areas of Particular Human Health Sensitivity

4611 Shoreline/Coastal Residential Population Densities

[Reserved for future Area Committee Development].

4612 Drinking Water Intakes

This information is For Official Use Only (FOUO) and maybe provided upon request. Please contact the Sector Jacksonville Contingency Planning and Readiness Department at (904) 564-7500.

4613 Areas of Particular Human Health Sensitivity

[Reserved for future Area Committee development].

4620 Environmentally Sensitive Areas and Template Booming Strategies

The Northeast and Eastern Central Florida area has been divided into geographical quadrants to facilitate identification and prioritization of sensitive environmental and economic resources targeted for protection following a spill event. Borders used by the Florida Marine Research Institutes Geographic Information System (GIS) divide the area into the sectors. Identification of resources and strategies for protecting sensitive resources are described by each sector in Appendix 9710 to this plan. The FOSC must also take historic properties into account when responding to spills. Historic properties include any prehistoric district, site, building, structure, or object included in, or eligible for inclusion on the National Register. Section 4630 of this Annex contains more information on historic properties. Section 4670, Local Contacts, provide contacts, resources, and references related to the protection of sensitive environmental and economic resources and historic properties.
The primary reference used to identify sensitive environmental and economic resources is the Sensitivity of Coastal Environments and Wildlife to Oil - State of Florida Atlas (Florida Marine Research Institute). The Environmental Sensitivity Index (ESI) maps were produced as an atlas by the National Oceanic and Atmospheric Administration (NOAA) to aid in sensitive resource identification during oil spills. The categories of resources listed in the atlas are divided into high, medium, and low priorities for protection based on sensitivity to oiling, ability to be cleaned, retention time, and cost of recovery. Short descriptions of resource characteristics (e.g., shoreline types, wildlife habitats, area characteristics) are included. A general discussion of prioritization is provided for each sector. During an actual spill this information may be supplemented with information along with the local and regional contacts.

There are five ESI atlases for the state of Florida. Sector Jacksonville is covered by two of these atlases with a small portion of it falling into an area covered by Georgia's ESI Atlas. These atlases have been converted to an interactive Adobe PDF format. The link below will open a hyperlinked Index map that can be used to navigate to each individual map and its associated biological (Resources at Risk) table.

http://ocean.floridamarine.org/acp/jaxacp/homeport.html.

See Appendix 9710 for Sensitive Areas

4621 Class “A” Shoreline Types – High Priority
This section outlines critical operations information about Class a Shoreline Types in Northeast and Eastern Central Florida. Class A Shorelines includes:
4621.1 Vegetated River Banks
4621.2 Salt Marsh and Mangrove Swamp
4621.3 Sea grass Beds
4621.4 Freshwater Marshes and Swamps
4621.5 Shellfish Harvesting Areas
4621.6 Eroding Bluffs

4621.1 Vegetated River Banks

Description:
Sites occur as grassy herbaceous vegetation or trees that grow along the river banks to the waters edge. They may occur in fresh or brackish water systems, and may be subject to flooding, depending on the slope of the bank. A variety of plant species may be found along the river banks and will be determined by a number of factors such as the salinity of the river, steepness of the bank, degree of flooding, and exposure to current. Many of the locations contain archaeological sites. Due to the occurrence of large numbers and diversity of native plant and animal species, the possibility of archaeological sites, the difficulty of cleaning these areas, and the possibility of freshwater contamination, this habitat type was given a class A priority.

Predicted Oil Impacts:
- Small quantities of oil will cover the outer edges of the area; however large quantities of oil may penetrate the sediment and coat the vegetation.
- Biological impacts may be great if oiling is heavy. Freshwater could be affected.
- The area / extent of surface oiling will also be affected by boat wakes and tides.
- Oil may persist for several months or years if not cleaned.

Recommendations for Cleaning:
- A State of Florida archaeologist should be consulted prior to any cleaning for determination of archaeological significance.
- High-energy areas may be cleaned naturally, particularly if oiling is light.
• Low pressure spraying may be effective.

4621.2 Salt marsh and Mangrove Swamp

Description:
These highly productive marshes typically occur near inlets and along the rivers behind barrier islands. In the northern end of the Jacksonville zone, these marshes are primarily associated with the St. Johns River, St. Marys River, Nassau Sound, Matanzas River, Tolomato River, and the Halifax River. The predominant plants are cordgrass (Spartina sp.) and rushes (Juncus sp.). Numerous species of wading birds, waterfowl, fishes, and invertebrates inhabit these marshes. Shellfish harvesting areas are often located in salt marsh. These areas also provide protection for many commercially important juvenile fish. Alligators and Atlantic salt marsh snakes inhabit these marshes.

Salt marshes in the southern end of the zone are predominantly associated with the Mosquito Lagoon, Banana River, and the Indian River. These estuarine systems are characterized by mangroves and extensive sea grass beds, in addition to cordgrass and rushes. These marshes support the greatest number of nesting birds on the Florida coast including wading birds, shorebirds, hawks, eagles, and songbirds. Over 600 species of fish have been cataloged in this region. Notable reptiles that can be found in these marshes include the Atlantic salt marsh snake, alligator, and 4 species of threatened and endangered sea turtles.

Predicted Oil Impacts:
• Vegetation would become coated by oil, heavy oil may cause smothering of vegetation.
• Persistence may be long term because of difficulty in cleaning
• Water-soluble toxic fractions of oil may penetrate sediments.
• High degree of biologic stress to mangroves, contamination of food chain

Recommendations for Cleaning:
• Generally cleaning is not recommended, and may cause additional physical damage to the marsh
4621.3 Sea grass Beds

Description:
Sea grass meadows are one of the most important biological communities in Florida. Sea grasses are highly productive, and are a major basis for coastal water food chains. Their physical structure provides living space and protection from predation for a diversity of organisms. Sea grass beds are essential nursery and feeding grounds for many marine organisms, especially commercially and recreationally important species and endangered manatee and sea turtles. Sea grasses stabilize sediments and play a key role in nutrient cycling.

Most of the sea grass beds in the Sector Jacksonville AOR are in Mosquito, Indian River and Banana River Lagoons. Large areas of shallow (<1 m) sea grass meadows occur in these water bodies. The most abundant species is shoal grass (Halodule wrightii). Other sea grass species occurring in the plan area are manatee grass (Syuringodium filiforme), widgeon grass (Ruppia maritima), star grass (Halophila engelmanni), and paddle grass (Halophila decipiens).

Predicted Oil Impacts:
- Oiling of sea grass blades would result in blade defoliation. Loss of sea grass and algal production, habitat and food for marine organisms. Could take 6 to 12 months to recover. Greatest impact to grasses exposed at low tide and those with blades extending to or near water surface.
- Heavy or weathered oil could sink and smother grass beds. Same effects on grass blades and shoots as above.
- Oil could have toxic impacts (lethal and sublethal) on invertebrates and fishes inhabiting grass beds. Juvenile forms would be most vulnerable. Greatest effects in shallow (<1 m) grass beds.
- Oiling of sediments would impact sea grass rhizomes and roots (below ground plant tissues) and infauna. Likely to occur if oil sinks. Potential effects: below ground sea grass mortality; infauna mortality; productivity loss; sediment destabilization; habitat destruction. Effects greatest in shallow grass beds. Recovery time is at least 1 to 2 years, but likely more.

Recommended Response Activities:
- Prevent oil from entering grass beds.
- Care should be taken to not prop scar grass beds by boats involved in response activities.
- Extreme care should be taken to not disturb sediments during cleanup activities; otherwise could result in complete loss of grass bed.
- Clean up efforts onshore (e.g., water washing/flushing) should not result in deposition of oiled sediments into grass beds.
- Before and during cleaning, evaluate if cleaning activities will be more detrimental to grass bed than oil, and effectiveness of cleaning process.
- Oiled Intertidal or Exposed Grass Beds: Do not clean oiled grass blades; blades will slough off naturally. If oil is on sediment surface, remove by vacuum or hand. Minimize disturbance and removal of sediment and below ground sea grass.
- Sunken Oil in Submerged Grass Beds: Remove from grass bed by hand (prefer) or vacuum. Minimize disturbance and removal of sediment and below ground sea grass. Does not worry about incidental removal of above ground grass (blades, shoots) during cleanup; these will slough off naturally.

4621.4 Freshwater Marshes and Swamps

Description:
Freshwater marshes within the Jacksonville Captain of the Port Zone occur in the floodplains of the St. Johns River and associated tributaries. These marshes are characterized by emergent herbaceous plants, fluctuating water levels, and recurring fires. Typical plant species include pickerelweed, maidencane, sawgrass, cordgrass and rushes. These
marshes are also important breeding grounds for all classes of vertebrates, particularly reptiles and amphibians dependent on these wetland resources. Freshwater marshes perform other functions such as providing flood control by acting as sinks, as freshwater storage areas, fisheries production, and recreation.

Freshwater swamps are distinguished from marshes by the abundance of trees, and are basically wooded wetlands. They occur along the St. Johns River throughout the Jacksonville AOR. Cypress trees are the dominant wetland tree in this zone; however other water tolerant species include pond pine, cabbage pond, black gum, willow, and laurel oak. These river swamps are thought to be the most biologically diverse type of swamp, providing food, cover, and nesting areas for a number of animals. Benthic invertebrates such as crayfish, clams, snails, and insect larvae inhabit swamps, as do numerous fish, some rare and endangered. A variety of birds and mammals utilize swamps at least some part of the year, notably river otters which feed on the crayfish, black bear, Florida panthers, and mink, all considered to be rare, threatened, or endangered, and swallow tail kites and Mississippi kites which nest in swamps.

**Predicted Oil Impacts:**
- Oil would be persistent because of the low flushing of freshwater marshes and swamps.
- Oil may cling to the vegetation further reducing natural cleaning; high mortality for resident animal
- Vegetation may be seasonally sensitive, with dormant vegetation being less sensitive than blooming and seeding plants
- Freshwater supplies may be contaminated by small amounts of oil.

**Recommendations for Cleaning:**
- Consider burning in freshwater marsh, which is fire-adapted community.
- Manual cleaning from boat
- Avoid any activity which mixes oil into sediment
- Natural recovery recommended for light oiling.

### 4621.5 Shellfish Harvesting Areas

**Description:**
In addition to the economic value of oysters and other shellfish, these mollusks provide habitat and food for a variety of other estuarine organisms. Most shellfish areas are found along inshore coastal habitats, including the ICW, St. Johns estuaries, Banana River, Tolomato River, and the Indian River Lagoon. Oysters spawn from late spring to early fall in these estuarine areas. The larvae of oysters require a solid substrate, and generally utilize existing colonies for attachment. Mollusks are filter feeders and rely on algae and suspended and dissolved organic matter for sustenance.

**Predicted Oil Impacts:**
- Most oyster reefs are intertidal and would be coated with oil during ebbing tides.
- Oysters are in danger of smothering from silting of sediments suspended in the water column.
- Large economic losses predicted if oiling occurs in shellfish harvesting areas.

**Recommendations for Cleaning:**
- Do not use clean-up methods which stir up bottom sediments or mechanically damage oyster reefs.
- Natural cleaning is probably the best approach, however may consider low pressure cold wash.

### 4621.6 Eroding Bluffs

**Description:**
Eroding Bluffs or riverbanks are located along high energy river systems. Roughly 85% of eroding bluffs in Northeast Florida contain archaeological sites. Many of these archaeological sites are shell middens, which were used as refuse areas by early man. They may contain pottery shards, human and animal bones, ceramic wares, and arrowheads and other Indian hunting points. Biological diversity may be low, typically; however these sites are given a high sensitivity classification because of their archaeological significance.

**Predicted Oil Impacts:**
- Oil will disperse to the high tide line.
- Oil may penetrate the sediments, particularly if they are sandy.

**Recommendations for Cleaning:**
- An archaeologist from the Division of State must be consulted prior to any cleaning activity.
- Cleanup may be natural, depending on waves and currents as well as sediment type.
- Oil may be hand scraped off the substrate, if approved by archaeologist.

### 4622 Class B Shoreline Types – Moderate Priority

This section outlines critical operations information about Class B Shoreline Types in Northeast and Eastern Central Florida.

Class B Shorelines include:
- 4622.1 Fine Sand Beaches
- 4622.2 Coarse/Mixed Sand Beaches, Gravel Beaches, Spoil Sites, Rip Rap, and Fill Sites

#### 4622.1 Fine Sand Beaches

**Description:**
This shoreline type is very common on the barrier islands of Northeast Florida. These beaches may be backed by dunes in the rural areas or seawalls in the more urban areas. These beaches are typically hard packed and exposed to varying degrees of wave and current energy, depending on their location (inland or coastal). Oil penetration into the sediments would be shallow. These properties of fine sand beaches render them among the easiest of all shoreline types to clean. Often, they are fronted by tidal flats, particularly along the sheltered areas. They may be important recreational and/or economic resources. Biological diversity and density may be low; however seasonal use by seabirds and marine turtles may be high.

**Predicted Oil Impacts:**
- Oily bands along upper intertidal zones, varying in intensity with amount of product accumulated.
- Shallow penetration of oil into sediment.
- Danger of oiling of seabirds or other organisms in intertidal zone.

**Recommendations for Cleaning:**
- Care should be taken to prevent mechanical mixing of oil deeper into sediments.
- Minimize amount of sand removed from beach.
- Caution should be exercised in dune areas, particularly where concentrations of the endangered beach mouse exist.
4622.2 Coarse/Mixed Sand Beaches, Gravel Beaches, Spoil Sites, Rip Rap, and Fill Sites

Description:
These shoreline types are plentiful along the coast as well as inland along riverbanks. Biological diversity and/or density may range from low along the coarse sand beaches to high among gravel beaches and rip rap. These shoreline types were classified as Class B sensitivity in spite of the fact that they are generally cleanable, because of the species richness of gravel beaches and rip rap, and because of the threatened and endangered species which utilize sand beaches and fill and spoil sites.

Predicted Oil Impacts:
- Oil may penetrate deeply into sediments on coarse sand beach, with toxic effects primarily on epifaunal amphipods.
- Little penetration of oil into fill.
- Oil will penetrate between boulders of rip rap, causing lethal effects on resident flora and fauna.
- Any toxic effects on invertebrates in any of these shoreline types will have effects on grazing shorebirds.

Recommendations for Cleaning:
- On coarse or mixed grain beach, minimize sand removal; manual cleanup most effective.
- Avoid excessive removal of sediment from fill, manual cleanup or low pressure spray.
- Remove oiled debris from rip rap; consider spraying, and or replacement of heavily oiled rip rap to prevent chronic leaching.

4622.3 Tidal Flats

Description:
Exposed tidal flats are primarily composed of sand and mud in shallow areas where currents and waves are sufficient to mobilize sand. The sediments are water-saturated and only the higher elevations dry out during low tide. Large numbers of polycheates, copepods, amphipods, fiddler crabs, and snails render tidal flats exceptional foraging grounds for birds. Vegetation may be present at the higher elevations.

Sheltered tidal flats are generally located along lagoon beaches, waterward of salt marshes, and other-calm water locations. Sediments are extremely soft, consisting primarily of silt and clay. Although rooted vegetation is sparse, microscopic algae form the basis of the food chain. A multitude of birds are attracted to these tidal flats to feed on mollusks, crabs, shrimp, flounder, mullet, and a variety of infaunal invertebrates. Many of the birds which loaf or forage on sheltered tidal flats from extensive nesting colonies in nearby upland areas.

Predicted Oil Impacts:
- Oil would not be expected to penetrate water saturated sediments, but may coat the surface layer on an ebbing tide.
- Biological damage severe; impacts from smothering
- Persistence may be long term in sheltered flats

Recommendations for Cleaning:
- Deployment of sorbents from shallow-draft boats.
- Careful removal of oiled wrack.
- Mechanical damage from walking on flats can be severe.
4623 Class C Shoreline Types – Low Priority

This section outlines critical operations information about Class C Shoreline Types in Northeast and Eastern Central Florida. Class C Shorelines include:

4623.1 Sea Walls and Piers
4623.2 Rocky Platforms

4623.1 Sea Walls and Piers

Description:
These shoreline types are common in urban areas for protection of residential and industrial properties. They are typically constructed of concrete, stone, wood, or metal and are often inhabited by barnacles, shellfish, and algae. These shoreline types were given a low priority ranking because of their ease in cleaning, short time period for recruitment and re-establishment of biota.

Predicted Oil Impacts:
- Oil may percolate between joints of wooden or stone structures.
- Some biota would be damaged; other species would exhibit greater tolerance.
- Persistence would be dependent upon exposure to high energy waves and currents.

Recommendations for Cleaning:
- High pressure washing to prevent chronic leaching.

4623.2 Rocky Platforms

Description:
This shoreline type is rare in Northeast Florida and is typically associated with some other shoreline type. In general, these rocky areas can be found on shorelines facing the open ocean where they are exposed to high energy waves and currents. This shoreline type was classified as low sensitivity because of this high energy exposure as well as ease in cleaning. The biotic assemblage of this shoreline type consists primarily of infaunal polychaetes and amphipods which display low sensitivity to oiling.

Predicted Oil Impacts:
- Oiled wrack and/or heavy oils may accumulate in depressions along rocks, slowing natural cleaning.
- Amphipods and isopods relatively tolerant of toxic effects of oil, however thermal absorbance capacity or rock surface may be increased.

Recommendations for Cleaning:
- Removal of oiled wreck
- High-pressure spray may be effective where plants and animals are not attached
- Natural cleaning in high energy areas

4630 Historic Properties

The National Historic Preservation Act requires Federal agencies to take into account the effects of response actions on historic properties when responding to spills. As the Federal official designated to coordinate and direct response actions, the Federal On-Scene Coordinator (FOSC) is responsible for ensuring historic properties are appropriately
considered while planning and during a spill response. Historic properties include any prehistoric or historic district, site, building, structure, or object listed in, or eligible for inclusion in, the National Register of Historic Places (36 CFR Part 60).

The listing of these sites is not currently included in this plan; however detailed maps identifying historic sites are available from the Florida Department of Natural Resources, Geographic Information Systems Division. Most historic sites are located on land and are not likely to be impacted by spills of oil or hazardous substances. However, many sites are located near the water, which can be adversely impacted by containment and recovery operations. Heavy equipment is particularly harmful to archeological sites and the FOSC should use other methods of containment and recovery in these areas. Some historic sites are located underwater and may be damaged by an oil or hazardous substance spill. However, even underwater, the sites are more likely to be adversely impacted by containment and recovery operations than the spill itself.

Before conducting containment or recovery operations on a historic site, the FOSC should contact the Florida DNR to determine the sensitivity of the site. The Florida DNR may also be able to assist in identifying which containment and recovery techniques are least likely to impact the historic site.

The National Register of Historic Places is the Nation's official list of cultural resources worthy of preservation. Authorized under the National Historic Preservation Act of 1966, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archeological resources. Properties listed in the register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. The National Register is administered by the National Park Service, which is part of the U.S. Department of the Interior.

http://www.cr.nps.gov/nr/about.htm

4631 The National Historic Preservation Act

On October 15th, 1966, Congress passed 16 USC 470, the National Historic Preservation Act (NHPA), to preserve the historical and cultural foundations of our Nation. Under Section 106 of NHPA, Federal agencies are required to consider the effects of their actions on historic properties and take steps to reduce or eliminate adverse effects.

4632 How the PA Applies to the USCG FOSC

The Programmatic Agreement on Protection of Historic Properties during Emergency Response under the National Oil and Hazardous Substances Pollution Contingency Plan (PA) requires consideration of historic properties in planning for and conduct of emergency response under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The PA was developed to help Federal agencies sufficiently comply with the requirements of the statute. This document is intended to assist Federal On-Scene Coordinators (FOSCs) in areas where the pre-spill planning called for in the PA has not yet been completed. However, it should not be used to replace existing regional PAs developed pursuant to the national PA or existing Area Contingency Plan (ACP) provisions developed pursuant to a regional or the national PA. It should also not be used as a substitute for completing the pre-spill planning called for in the PA.

The PA, signed by the Assistant Commandant for Marine Safety, Security and Environmental Protection on May 13, 1997, provides an alternative to the process in Section 106 of the NHPA to ensure appropriate consideration of historic properties within the context of the NHPA during emergency response to a discharge or a release under the NCP (40 CFR 300). The alternative to following the process in the PA, including the pre-spill planning part of the process, is to follow the complete consultation process in Section 106 of the NHPA.
The PA states that the FOSC is responsible for ensuring that historic properties are appropriately considered in planning and during emergency response. During pre-spill planning activities, the PA calls for identifying: historic properties listed in, or determined to be eligible for listing in, the National Register of Historic Properties (NR) that might be affected by response to a release or spill; unsurveyed areas where there is a high potential for the presence of historic properties; geographic areas or types of areas where historic properties are unlikely to be affected; parties that are to be notified in the event of a spill in a non-excluded area; who will be responsible for providing expertise on historic properties to the FOSCs during emergency response (i.e., the FOSC’s Historic Properties Specialist); and developing emergency response strategies to help protect historic properties.

Effective consideration of historic properties during emergency response in the absence of this advance planning is extremely difficult and may not be possible, so to take advantages of the benefits of the PA, FOSCs are to make every effort to conduct this planning effort and incorporate it into the ACP in advance. During emergency response, FOSCs are responsible for initiating the agreed upon mechanism for addressing historic properties, namely activating the FOSC’s Historic Properties Specialist. In turn, the FOSC’s Historic Properties Specialist will: notify and consult with parties identified in pre-incident planning and those applicable entities that are listed in the ACP; assess potential effects of emergency response strategies on historic properties; and recommend to the FOSC response actions to help minimize or eliminate potential impacts to historic properties.

4633 Obtaining Expertise on Historic Property Matters During Emergency Response

One of the essential pre-spill planning elements is the identification of those who will be responsible for providing reliable and timely expertise on historic properties to the FOSC during emergency response, i.e., the FOSC’s Historic Properties Specialist. The PA provides that historic properties expertise and support may be obtained by the FOSC in any one of several ways:

- Implementing an agreement with State or Federal agencies that have historic properties specialists on staff;
- Executing a contract with experts identified in ACPs; or
- Privately hiring historic properties specialists.

The PA specifies the professional qualifications and standards that and Historic Properties Specialist must meet. It should be noted that only the FOSC, and not the Responsible Party, may contract with experts to serve as the FOSC’s Historic Properties Specialist. An FOSC may utilize a Pollution Removal Funding Authorization (PRFA) for funding the activation of a Historic Property Specialist only during emergency responses to oil pollution incidents. Oil Spill Liability Trust Fund resources are not available for hiring of a specialist to assist with pre-spill planning activities.

If FOSCs choose to obtain historic properties expertise through executing contracts with appropriate archaeologists, it is possible to go through a solicitation process that includes technical input and assistance from appropriate State Historic Preservation Officers (SHPOs) and Federal land management agency cultural resources specialists. Blanket Purchase Request Agreements may then be established with one or more companies or with one or more named individuals who may be activated during emergency response to serve as the FOSC’s Historic Properties Specialist(s).

4634 References

In the development of an Incident Action Plan (IAP), refer to this document, its appendixes, and the PA. The PA may be found at: http://www.achp.gov/NCP-PA.html.
For an example of implementation guidelines for the national PA, refer to the Alaska RRT website: http://www.akrrt.org/AK_IPG.pdf

The list of properties included in the NR may be found at: http://www.cr.nps.gov/nhl/designations/listsofNHLs.htm. However, the NR is not sufficient in helping to determine all of the properties that need to be considered in your ACP, as you must also consider properties that could be determined eligible for inclusion in the NR. For eligibility criteria, please refer to: http://www.nps.gov/nr/publications/bulletins/nrb15/nrb15_2.htm.

The following web page contains links to SHPOs, Tribal Preservation Officers, and Federal Preservation Officers: http://www.nps.gov/nr/national_register_fundamentals.htm#fpo.

4634.1 Oil Discharge and Hazardous Substances Release Emergency Response Phase Checklist

☐ FOSC determines whether the exclusions of the PA apply. Operate under assumption that any oil discharge or hazardous substance release may impact or has impacted historic properties, unless the release impacts one of the excluded areas.

- Excluded areas may be specific geographic areas or types of areas where, should a release or spill occur, historic properties are unlikely to be affected. This includes the information listed in Section 4634.3 and any additional exclusion agreed upon by the signatories to a regional PA.

☐ If the incident affects only excluded areas, no further actions are necessary unless:

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

☐ If the area where a release or spill occurs has not been excluded, then

- Activate the agreed-upon mechanism for addressing historic properties (i.e., the FOSC’s Historic Properties Specialist), who will notify and consult with the parties identified in the ACP through the PA pre-spill planning process and provide them with incident information (Section 4634.4).

☐ FOSC’s Historic Property Specialist assesses potential effects of emergency response strategies on historic properties in consultation with the parties identified in the ACP.

☐ The FOSC’s Historic Property Specialist recommends to the FOSC response actions and policies developed in consultation with parties identified in the ACP to help minimize potential impacts to historic properties. See Section 4634.5.

☐ Whenever the FOSC determines that the requirements of the PA cannot be satisfied concurrently with the paramount requirement of protecting public health and the environment, the determination shall be documented in writing including the name and title of the person who made the determination, the date of determination, and a brief description of the competing values between public health and safety and carrying on the provisions of the PA (See Section 4634.6). Submit form to State Historic Preservation Officer or appropriate Federal, Indian, or Hawaiian Native organizations and/or public.
4634.2 FOSC Procedure for Determining When To Activate a Historic Properties Specialist

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 Section 4634.3?

If the answer is “YES,” no other actions regarding historic protection are required.

If the answer is “NO” proceed to Step 3.

STEP 3: To continue in accordance with the National Programmatic Agreement, Activate Federal On-Scene Coordinator’s Historic Properties Specialist

See FOSC’s list of pre-identified Historic Properties Specialists.

See Section 4634.4 for suggested information to provide to the Historic Properties Specialist upon activation.
### 4634.3- Spills or Releases Categorically Excluded from Additional NHPA Section 106 Compliance

<table>
<thead>
<tr>
<th>Spills/releases onto (which stay on):</th>
</tr>
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<tbody>
<tr>
<td>- Gravel pads</td>
</tr>
<tr>
<td>- Roads (gravel or paved, not including the undeveloped right-of-way)</td>
</tr>
<tr>
<td>- Parking areas (graded or paved)</td>
</tr>
<tr>
<td>- Dock staging areas less than 50 years old</td>
</tr>
<tr>
<td>- Gravel causeways</td>
</tr>
<tr>
<td>- Artificial gravel islands</td>
</tr>
<tr>
<td>- Drilling mats, pads, and/or berms</td>
</tr>
<tr>
<td>- Airport runways (improved gravel strips and/or paved runways)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spills/releases into (that stay in):</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Lined pits; <em>e.g.</em>, drilling mud pits and reserve pits</td>
</tr>
<tr>
<td>- Water bodies where the release/spill:</td>
</tr>
<tr>
<td>1) will not reach land or submerged land; and</td>
</tr>
<tr>
<td>2) will not include emergency response activities with land or submerged land-disturbing components</td>
</tr>
<tr>
<td>- Borrow pits</td>
</tr>
<tr>
<td>- Concrete containment areas</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spills/releases of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Vapor (<em>e.g.</em>, chlorine gas)</td>
</tr>
</tbody>
</table>

**IMPORTANT NOTE TO FOSC:**

1) IF YOU ARE NOT SURE WHETHER A RELEASE OR SPILL FITS INTO ONE OF THE CATEGORIES LISTED ABOVE; and/or

2) IF AT ANY TIME, THE SPECIFICS OF A RELEASE OR SPILL CHANGE SO IT NO LONGER FITS INTO ONE OF THE CATEGORIES LISTED ABOVE;

3) IF THE SPILL OR RELEASE IS GREATER THAN 100,000 GALLONS; AND/OR

4) IF THE STATE HISTORIC PRESERVATION OFFICER AND/OR ANOTHER STATEHOLDER NOTIFIES YOU THAT A CATEGORICALLY EXCLUDED RELEASE OR
SPILL MAY HAVE THE POTENTIAL TO AFFECT A HISTORIC PROPERTY

FOLLOW THE EMERGENCY RESPONSE PHASE CHECKLIST, OR SECTION IV OF THE PA.

4634.4 INFORMATION TO BE PROVIDED TO FOSC’S HISTORIC PROPERTIES SPECIALISTS 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 _______; Unknown _______

Is spill/release: Contained _______; Spreading _______; Unknown _______

Estimated volume of product potentially released: _________ gals/bbls/other measure

Have Regional Response Strategies been approved for the area affected or potentially affected by the spill/release? Yes_________; No_________
Describe any response actions proposed or taken that include ground-disturbing activities:

### 4634.5 Potential Emergency Response Strategies For Historic Properties Protection

<table>
<thead>
<tr>
<th>RESPONSE STRATEGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical recovery (e.g. use of skimmers, booms, sorbents)</td>
</tr>
<tr>
<td>In situ burning</td>
</tr>
<tr>
<td>Dispersant use</td>
</tr>
<tr>
<td>Protective or diversionary booming</td>
</tr>
<tr>
<td>Covering site with protective material</td>
</tr>
<tr>
<td>Construction of berms or trenches to divert product away from sites/areas</td>
</tr>
<tr>
<td>On-scene inspections by the FOSC Historic Properties Specialist or individual(s) authorized by the Federal OSC Historic Properties Specialist</td>
</tr>
<tr>
<td>Participation in Shoreline Cleanup Assessment Teams by the FOSC Historic Properties Specialist or designee</td>
</tr>
<tr>
<td>Participation in Shoreline Cleanup Teams by the FOSC Historic Properties Specialist or designee</td>
</tr>
<tr>
<td>Provision of information on historic properties protection to response personnel</td>
</tr>
<tr>
<td>Provision of information to the FOSC on Historic Properties Protection for areas/locations proposed for emergency-response related support activities (e.g. helipads and staging areas)</td>
</tr>
</tbody>
</table>
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.
4634.6 Documentation of Actions Taken That Resulted In Unavoidable Injury To Historic Properties

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

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 (FOSC) where protecting public health and safety was in conflict with protecting historic properties:

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

FOSC Name and Title:

FOSC Signature:

Date of Signature:

____________________________________________________________________________

Faxed to:

☐ SHPO

☐ (Name and fax number of potentially-affected resource managers/trustees):

☐ (Name and fax number of potentially-affected resource managers/trustees):

☐ (Name and fax number of potentially-affected resource managers/trustees):
4640 Endangered Species Protection

The Interagency Memorandum of Agreement Regarding Oil Spill Planning and Response Activities under the National Contingency Plan and the Endangered Species Act (MOA), which was signed by the USCG, among others, aligns the consultation requirements with the pollution response responsibilities outlined in the NCP (40 CFR 300). This document is intended to assist Federal On-Scene Coordinators (FOSCs) in areas where the pre-spill planning called for in the MOA has not yet been completed. It should not be used to replace existing Area Contingency Plan (ACP) provisions developed pursuant to the MOA or existing regional guidance on implementation of the MOA. It should also not be used as a substitute for completing the pre-spill planning called for in the MOA.

4641 The Endangered Species Act of 1973

The Endangered Species Act of 1973 (ESA) (16 USC 1531 et seq) was enacted to conserve and recover threatened and endangered species and the ecosystems upon which they depend. The Act is administered by the U.S. Fish and Wildlife Service (USFWS) in the Department of the Interior and NOAA’s National Marine Fisheries Service (NOAA Fisheries) in the Department of Commerce. Under Section 7 of the ESA, federal agencies must consult with USFWS and NOAA Fisheries on actions they carry out, permit, or fund which may affect listed species or designated critical habitat. ESA Section 7 requires that agencies ensure their actions are not likely to jeopardize listed species or destroy or adversely modify their designated critical habitat. During emergencies such as disasters, casualties, national defense or security emergencies, and response to oil spills, the ESA allows for emergency consultation during the incident with formal consultation occurring after the incident, if necessary. The emergency consultation procedures are described in the MOA.

4642 How the MOA Applies to the USCG FOSC

The MOA, signed by the USCG, Environmental Protection Agency (EPA), NOAA, DOI, FWS, and NOAA Fisheries in July 2001, aligns the ESA consultation requirements with the pollution response responsibilities outlined in the NCP (40 CFR 300). The MOA is intended to be used at the Area Committee level primarily to identify and incorporate plans and procedures to protect listed species and designated critical habitat during pre-spill planning and response activities.

In addition, a guidebook addressing the MOA was developed by its signatory agencies to further facilitate cooperation and understanding between the agencies involved in oil spill planning and response. This cooperation is highly successful when it is established before an incident occurs and needs to continue throughout an incident and the post-incident follow-up and review. By working proactively to identify the potential effects of spill response activities on species and their habitat, and then developing response plans and countermeasures, impacts to listed species and/or critical habitat can be reduced or avoided completely during an incident.

Using the MOA guidebook, the attached appendices were developed to assist FOSCs during Emergency Response and Post Response activities. In the appendices, there are additional recommendations that were developed as a result of the April 2003 Bouchard B. No. 120 spills that occurred in Buzzard’s Bay, Massachusetts. Pre-spill planning guidance can be found in Chapter 6 of the MOA Guidebook.

4643 References

Regulations regarding ESA consultation are found in 50 CFR 402, located at: http://www.access.gpo.gov/nara/cfr/waisidx_04/50cfr402_04.html
The Interagency Memorandum of Agreement Regarding Spill Planning and Response Activities under the Federal Water Pollution Control Act’s National Oil and Hazardous Substances Pollution Contingency Plan and the Endangered Species Act available at:
http://www.nrt.org/production/NRT/NRTWeb.nsf/PagesByLevelCat/Level2ESAMOU?Opendocument

The guidebook for the MOU is available at:

HTTP://WWW.NRT.ORG/PRODUCTION/NRT/NRTWEB.NSF/PAGESBYLEVELCAT/LEVEL2ESAMOU?OPENDOCUMENT
### 4643.1 OIL SPILL EMERGENCY RESPONSE PHASE

*An excerpt from Chapter 7 of the ESA MOA Guidebook*

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
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</table>
| 1    | FOSC notifies appropriate representatives of NOAA Fisheries, USFWS, State Natural Resource Trustees, and Tribes and/or other agencies and stakeholders once an oil spill has occurred where the potential for impacting environmentally sensitive areas, endangered species and/or critical habitats from spill response activities exists.  
  - Use pre-identified points of contact or “Notification List” from ACP to contact the Service regional or field office directly and to notify the RRT representatives of DOI and DOC. |
| 2    | FOSC gathers information about sensitive areas, endangered species, or critical habitat that may potentially be impacted by a Federal action:  
  - As soon as possible after the spill has occurred, determine data needs and who will be providing or collecting the data.  
  - Use or develop data collection forms to facilitate consistent and precise data compilation. |
| 3    | If listed species or critical habitats are impacted or could be present in the area affected by response activities, initiate emergency consultation by contacting the USFWS and/or NOAA Fisheries through agreed-upon procedures. |
| 4    | Appoint a Technical Specialist within the Planning Section to serve as the Endangered Species expert to help ensure that the necessary information, using terminology understood by USFWS and/or NOAA Fisheries, is gathered.  
  - If appropriate, the NOAA SSC and/or the USFWS rep may coordinate endangered species expertise for the FOSC.  
  - If there is no USFWS or NOAA Fisheries representative in the ICS, but they are aware of the situation, the FOSC must ensure that the NOAA SSC and DOI are apprised of the situation.  
  - Information gathered will be used in the ESA consultation. |
|      | **Note:** As necessary, the FOSC can make funding available to USFWS and/or NOAA Fisheries for costs incurred in providing any agreed upon assistance such as preparing the Biological Assessment or Biological Evaluation. However, the USFWS and/or NOAA Fisheries are not reimbursed for completing a Biological Opinion. Pollution Removal Funding Authorization guidance can be found:  
| 5    | Implement ACP for initial response actions. |
| 6    | Develop Incident Action Plan with strategies based on the specifics of the spill situation. This plan will serve as formal documentation of actions directed to minimize the impacts of response actions. |
| 7    | Emergency consultation continues until the FOSC determines that the spill response is complete.  
  **Recommendation:** Develop seek alignment on clean-up methodologies and cessation of operations with consensus from resource managers, specialists and responders, and revisit as clean up progresses toward a conclusion. |
USFWS and/or NOAA Fisheries provide the FOSC with timely recommendations to avoid and/or minimize impacts to listed species and critical habitat. If an incidental take is anticipated, USFWS and/or NOAA Fisheries would advise FOSC of ways to minimize this, or, if this is not possible, document the actual take of listed species.

A “take is defined in the ESA as: "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The USFWS has defined "harm" as "an act which actually kills or injures wildlife" (50 C.F.R. § 17.3). The regulation further explains that "[s]uch [an] act may include significant habitat modification where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering."

The FOSC requests USFWS and/or NOAA Fisheries representatives on-scene (or someone else mutually agreed upon) to gather and document the information necessary for post-emergency Formal Consultation, including:

- Description of the emergency (the oil spill response).
- Evaluation of the emergency response actions and their impacts on listed species and their habitats, including documentation of how USFWS and/or NOAA Fisheries recommendations were implemented, and the results of implementation in minimizing take.
- Comparison of the emergency response actions with the pre-planned countermeasures and information in the ACP.

The FOSC should ensure that the above checklist is completed before the case is closed.

Recommendation: To obtain timely information on oil spill response impacts, provide a short form for the SCAT team to be completed daily for sites with listed species. The daily site form should contain the following fields (at a minimum):

- Staff (numbers)
- Actions taken
- Equipment used
- Time working
- Checkboxes for weather (sunny, cloudy, etc)
- Wrack (wet seaweed at high tide line) removed? (Y/N)

All forms should emphasize the need for more detail when there are extraordinary circumstances, such as nest abandonment, thought to be related to the response.

Notify/alert Service representatives, NOAA SSC and/or DOI representative of any changes in response operations due to weather, extended operations or some other circumstance.

Obtain information from Services of seasonal variances (e.g. bird migration), or other natural occurrences affecting the resource.

FOSC or a representative designated by the FOSC should maintain a record of all written and oral communications during the response (See Appendix B of the ESA MOA for a means for tracking this information), to include recommended response procedures and incidental take.
### 4643.2 POST-RESPONSE PHASE

*An excerpt from Chapter 8 of the ESA MOA Guidebook*

<table>
<thead>
<tr>
<th>Paragraph</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOSC determines when removal operations are complete and closes the case ensuring that lessons learned are recorded, documentation is filed and Area Committee is advised of any necessary changes to the ACP (See pg. 51, ESA MOA Guidebook).</td>
</tr>
<tr>
<td><strong>Note:</strong> The Emergency Consultation Checklist from the MOA Guidebook should be compiled BEFORE the FOSC determines that the response operations are completed and the case is closed. Oil Spill Liability Trust Fund (OSLTF) funding is not available AFTER the case is closed.</td>
</tr>
<tr>
<td></td>
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<tr>
<td>FOSC, USFWS and NOAA Fisheries jointly evaluate the impacts of response activities on listed species and critical habitat.</td>
</tr>
<tr>
<td><strong>Note:</strong> This is to be based on information gathered during the response, not on any new studies.</td>
</tr>
<tr>
<td></td>
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<tr>
<td>If joint evaluation concludes that listed species and/or critical habitat were not adversely affected by response activities, the consultation process is complete.</td>
</tr>
<tr>
<td>The FOSC must send a letter to USFWS and/or NOAA Fisheries including:</td>
</tr>
<tr>
<td>• Report of this agreement; and,</td>
</tr>
<tr>
<td>• Request a letter of concurrence from USFWS and/or NOAA Fisheries.</td>
</tr>
<tr>
<td></td>
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<tr>
<td>If joint evaluation results in a disagreement between USFWS, NOAA Fisheries, and the FOSC, USFWS and/or NOAA Fisheries will send the FOSC a letter stating why they believe there were adverse effects on listed species or critical habitat. The FOSC may act on the USFWS/NOAA Fisheries reply or simply document the response.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>If impacts have occurred, the FOSC sends a letter to USFWS and/or NOAA Fisheries to initiate <em>Formal Consultation</em>. Enclose the information gathered during the response with any modifications that may have been made during the post-response joint evaluation.</td>
</tr>
<tr>
<td>• This can be done by finalizing the Emergency Consultation Checklist from Appendix B of the MOA and submitting it with a cover letter and a request for formal consultation from Appendix E as an initiation package to the Service(s).</td>
</tr>
<tr>
<td>• Also see Activity 11: Documenting the Risk Assessment, pg. 65 of the Guidebook.</td>
</tr>
<tr>
<td><strong>Note:</strong> If a Service representative assists in preparing the initiation package, the same representative will NOT be responsible for reviewing it or preparing the biological opinion.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>The USFWS and/or NOAA Fisheries have 30 days from receipt of the initiation package to determine if the package is complete. When complete, they normally issue a Biological Opinion within 135 days.</td>
</tr>
</tbody>
</table>
4650 ESSENTIAL FISH HABITAT PROTECTION DURING EMERGENCY SPILL RESPONSE OPERATIONS FOR OIL DISCHARGES AND HAZARDOUS SUBSTANCE RELEASES

This section is intended to assist Federal On-Scene Coordinators (FOSCs) in areas where the pre-spill planning activities called for under the Magnuson-Stevens Fishery Conservation and Management Act have not yet been completed. However, this document is not intended to be an all-inclusive technical reference for reducing or eliminating all possible adverse effects to Essential Fish Habitat (EFH). It should also not be used to replace existing Area Contingency Plan (ACP) provisions developed pursuant to the protection of EFH.

4651 The Magnuson-Stevens Fishery Conservation and Management Act

In 1996 the Magnuson Fisheries Conservation Act was amended by the Sustainable Fisheries Act to include a number of new mandates, and was subsequently renamed the Magnuson-Stevens Fishery Conservation Act (MSA) (16 USC 1801 et seq). The MSA established procedures designed to identify, conserve, and enhance EFH for those species regulated under a Federal fisheries management plan (FMP). EFH is defined as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity” and can include rivers, estuaries, bays and open ocean (out to 200 miles).

Under Section 305(b)(2) of the MSA, Federal action agencies are required to consult with NOAA’s National Marine Fisheries Service (NOAA Fisheries) on all actions, or proposed actions, authorized, funded, or undertaken by the agency that may adversely affect EFH. Consultation involves the submission of an EFH assessment to NOAA Fisheries for actions including emergency responses to oil discharges and hazardous substance releases. Reference Section 4654 for guidance on the identification of EFH in your FOSC’s area of responsibility.

4652 The EFH Consultation Process and How it Applies to USCG FOSCs

The EFH consultation process is in place to ensure that Federal agencies consider the effects of their actions on EFH, with the goal of “maintain[ing] fish production consistent with a sustainable fishery and the managed species contribution to a healthy ecosystem” (50 CFR 600.815(a)(2)(i)(C)(4)). The process as outlined in this FOSC guide satisfies the Federal agency consultation and response requirements of Sections 305(b)(2) and 305(b)(4)(B) of the MSA, as well as the EFH conservation recommendation requirement of MSA Section 305(b)(4)(A).

As with the Endangered Species Act, FOSCs determine when an action “may adversely affect” EFH. Once the FOSC has identified an action that may adversely affect EFH, the FOSC must notify NOAA Fisheries and provide an EFH Assessment. Once NOAA Fisheries receives the Assessment, it provides recommendations to the FOSC within 30 days regarding the actions taken or to be taken. The FOSC is then required to provide a detailed response in writing to NOAA Fisheries within 30 days of receiving the recommendation.

Alternatively, if the FOSC determines that there are “no adverse affects,” the FOSC is not required to notify NOAA Fisheries of its findings and actions related to the spill response. However, NOAA Fisheries on their own may decide that an action may adversely affect EFH and send their recommendations to the FOSC. In this case, the FOSC must respond to NOAA Fisheries in writing within 30 days.
The FOSC’s response to NOAA Fisheries shall include a description of measures proposed to avoid, mitigate, or offset the impact of the activity on EFH. In cases where the FOSC is not in agreement with the recommendations by NOAA Fisheries, the FOSC should at a minimum explain the reasons for not following the recommendations.

The FOSC should contact NOAA Fisheries early in emergency response planning, but may consult after-the-fact if consultation on an expedited basis is not practicable before taking action (50 CFR 600.920(a)(1)). To the extent practicable, the Scientific Support Coordinator (SSC) or FOSC should notify NOAA Fisheries of the activities being taken and whether or not time allows for upfront consultation. Additionally, the FOSC and NOAA Fisheries may agree to combine an EFH consultation into an already established consultation process, such as those for the ESA or the National Environmental Protection Act (NEPA), for the same incident, provided all the information required for EFH is documented.

In the development of an Incident Action Plan, refer to the *Emergency Response Checklist for EFH during Oil Discharges and Releases of Hazardous Substances*. FOSCs are also encouraged to work with applicable Regional Response Teams and Area Committees before an oil discharge or a hazardous substance release to update their ACPs with methods on how to minimize, mitigate, or avoid adverse effects to EFH.

### 4653 What is required in an EFH Assessment?

For the consultation process, the EFH Assessment must include the following (50 CFR 600.920(e)(3)):

1. Description of the action (level of detail must correspond to magnitude and complexity of potential effects);
2. Analysis of the potential adverse effects of the action on EFH and the managed species;
3. Federal agency’s conclusions regarding the effects of the action on EFH; and
4. Proposed mitigation, if applicable.

The EFH Assessment should include:

1. Description of the spill;
2. Conclusions of the USCG (through the Area Committee and/or FOSC) regarding the effects of the action on EFH; and
3. EFH Assessments submitted to NOAA Fisheries shall employ one or both of the following formats as necessary:

#### Use of Existing Environmental Consultation Procedures for EFH Consultation

NOAA Fisheries encourages this procedure to streamline the EFH consultation process. As long as an existing process clearly identifies in a separate section of the document the information required to satisfy an EFH Assessment, and the process will provide NOAA Fisheries with timely notification, the assessment may be incorporated into documents prepared for other purposes. Examples of such documents include Endangered Species Act Biological Assessments pursuant to 40 CFR 402 and the National Environmental Policy Act documents and public notices pursuant to 40 CFR 1500.

#### Abbreviated and Expanded Consultation

Abbreviated consultation procedures should be used when the adverse effects of an action can be alleviated through minor modifications to the action. However, in cases where Federal actions would result in substantial adverse effects to EFH, expanded consultation procedures must be used. Expanded consultation allows maximum opportunity for NOAA Fisheries and the Federal agency to work together to review the action’s impacts on EFH and to develop EFH conservation recommendations. If appropriate, NOAA Fisheries may conduct a site visit.

### 4654 References

EFH Policy Regulations
Procedures for identification of EFH and the consultation process can be found in 50 CFR 600 (published January 17th, 2002).

Essential Fish Habitat locations in your region may be found on the web at:

EFH Consultation Guidance
Includes information on the procedures that have been developed to assist NOAA Fisheries and other Federal agencies in addressing the EFH coordination and consultation requirements established by the MSA and the EFH regulatory guidelines:

EFH Assessment Guidance
Intended to assist Federal agencies in developing EFH Assessments. The guide contains EFH definitions, responses to frequently asked questions concerning preparation of EFH Assessments, and gives three examples of completed EFH Assessments:

NOAA Fisheries EFH Regional Contacts:

<table>
<thead>
<tr>
<th>Region</th>
<th>Name</th>
<th>Email</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southeast Region</td>
<td>David Dale</td>
<td><a href="mailto:david.dale@noaa.gov">david.dale@noaa.gov</a></td>
<td>727-570-5736</td>
</tr>
<tr>
<td>Northeast Region</td>
<td>Chris Boelke</td>
<td><a href="mailto:christopher.boelke@noaa.gov">christopher.boelke@noaa.gov</a></td>
<td>978-281-9102</td>
</tr>
<tr>
<td>Southwest Region</td>
<td>Joe Dillon</td>
<td><a href="mailto:joseph.j.dillon@noaa.gov">joseph.j.dillon@noaa.gov</a></td>
<td>707-575-6093</td>
</tr>
<tr>
<td>Northwest Region</td>
<td>Dale Brege</td>
<td><a href="mailto:dale.brege@noaa.gov">dale.brege@noaa.gov</a></td>
<td>208-983-3859 x 222</td>
</tr>
<tr>
<td></td>
<td>Russ Strach</td>
<td><a href="mailto:russ.strach@noaa.gov">russ.strach@noaa.gov</a></td>
<td>503-231-6266</td>
</tr>
<tr>
<td>Alaska Region</td>
<td>Matt Eagleton</td>
<td><a href="mailto:matthew.eagleton@noaa.gov">matthew.eagleton@noaa.gov</a></td>
<td>907-271-6354</td>
</tr>
<tr>
<td>Pacific Islands Region</td>
<td>John Naughton</td>
<td><a href="mailto:john.naughton@noaa.gov">john.naughton@noaa.gov</a></td>
<td>808-973-2937</td>
</tr>
</tbody>
</table>
### 4654.1 EMERGENCY RESPONSE CHECKLIST FOR EFH DURING OIL DISCHARGES AND RELEASES OF HAZARDOUS SUBSTANCES

<table>
<thead>
<tr>
<th>FOSC notifies Department of Interior/NOAA representative to the RRT of any actual or potential adverse effects to EFH.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOSC notifies NOAA Fisheries regional staff of actual or potential adverse effects to EFH. Notification should occur in writing.</td>
</tr>
</tbody>
</table>
  *Note:* The National Response Center’s (NRC) flash fax notification of a spill to NOAA does not meet this requirement. |
| If consultation during the emergency response phase is not practicable, the FOSC may consult with NOAA Fisheries after-the-fact, as per 50 CFR 600.920(1)(a). |
| FOSC provides NOAA Fisheries an EFH Assessment for spill activities: |
  - Description of discharge or release |
  - Description of area which may be affected |
  - Description of spill response actions |
  - Analysis of the potential adverse effect(s) of the response actions on EFH and the managed species |
  - USCG recommendations/conclusions regarding the effects of the action on EFH |
  - Proposed mitigation, if applicable |
| Supplemental information, if appropriate, for EFH Assessment: |
  - Results of on-site inspection evaluating habitat and site-specific effects |
  - Views of recognized experts on the habitat or species affected |
  - Review of pertinent literature and related information |
  - Analysis of alternatives to the response actions taken |
  - Other relevant information |
| FOSC notifies NOAA Fisheries of changes in response operations due to weather, extended operations, or some other circumstance. |
| FOSC obtains information on seasonal variances or other natural occurrences affecting EFH from NOAA Fisheries. |
| FOSC provides a detailed response in writing within 30 days of receiving EFH Conservation Recommendations from NOAA Fisheries, unless otherwise agreed to. |
| SSC provides NOAA Fisheries a response regarding EFH Conservation Recommendations after the FOSC determines that removal operations are completed IAW with 40 CFR 300.320(b). If operations are not complete then send an interim response: |
  - Description of spill response |
  - Evaluation of emergency response actions & their impacts on EFH to include documentation of how NOAA Fisheries recommendations were implemented and results of implementation in minimizing adverse effects to EFH |
  - A comparison of the emergency response actions with the pre-planned countermeasures from the ACP |
4660 ECONOMICALLY SENSITIVE AREAS
Refer to ESI maps.

4661 Power Plant and Industrial Cooling Water Intakes
[Reserved for future Area Committee Development]

4662 Fisheries, Fish Havens, and Fish Hatching
[Reserved for future Area Committee Development].

4670 Local Environmental Unit Contacts
Sections 4651 and 4652 contain local contacts that can be used to obtain additional information on sensitive areas in each of the counties in Northeast and Eastern Central Florida.

4671 Federal and State Agency/Entity Contacts
List of contacts located in Section 9200.

4672 County Agency / Entity Contacts
List of contacts located in Section 9200.

TECHNICAL SUPPORT
Technical specialists are advisors within the Planning Section with special skills needed to support an incident. Technical specialists may be assigned anywhere in the ICS structure, however, and often advise the FOSC/SOSC/RPIC directly on certain issues.

4710 Marine Chemists, Hygienists, and Engineers

4711 The Marine Chemist Association
The Marine Chemist Association is an independent professional organization composed of chemists certified by the National Fire Protection Association in accordance with published rules. The Association originated in May 1938, as the Marine Chemists' Subsection of the NFPA, Marine Section. Upon
termination of the Marine Section in 1948, the present Association was organized for the following purposes:

1. To promote the science of, and improve the method of evaluation and eliminating health, fire, and explosion hazards in marine and associated industries.
2. To obtain and circulate information relative to these hazards and other information regarding the professional and ethical activities of its members.
3. To enhance the general welfare of its members by promoting a closer relationship with all concerned industry and regulatory bodies.

The United States Coast Guard and the Occupational Safety and Health Administration require that a certificate issued by a Marine Chemist must be obtained before hot work or fire producing operations can be carried out in certain spaces aboard a marine vessel. The appropriate U.S. Coast Guard Regulations are contained in 46 CFR 35.01-1(c)(1), 71.60-1(c)(1), 91.50-1(c)(1), 167.30-10(c)(1), and 189.50-1(c)(1). The appropriate OSHA regulations are contained in 29 CFR 1915.14.

In complying with both the U.S. Coast Guard and OSHA regulations, the Marine Chemist 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 Marine Chemist 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 materials.

Web Site: [http://marinechemist.org/](http://marinechemist.org/)

**4712 Certified Industrial Hygienist**

An Industrial Hygienist (IH) is a professional who is dedicated to the health and well being of the worker. Typically, this would have an IH evaluating the health effects of chemicals or noise in a work place. The IH professional traditionally has gained knowledge though a combination of education, training, and experience. Ideally, this knowledge is used to anticipate when a hazardous condition could occur to cause an adverse health effect on workers or the environment. Failing that, the IH must be able to recognize conditions that could lead to adverse health effects to workers or a community population.

**4712.1 American Board of Industrial Hygiene**

The American Board of Industrial Hygiene (ABIH®), a not-for-profit corporation, was organized to improve the practice and educational standards of the profession of Industrial Hygiene.

The activities that carry out this purpose include:

1. To receive and process applications for examinations, and to evaluate the education and experience qualifications of the applicants for such examinations.
2. To grant and issue to qualified persons, who pass the Board's certification examination, certificates acknowledging their competence in Industrial Hygiene or aspects thereof, and to revoke for cause certificates so granted or issued.
3. To provide for maintenance of certification by requiring submission of evidence of continued professional qualifications by the holders of certificates in the Comprehensive Practice or Chemical Practice of Industrial Hygiene.
4. To maintain a record of certificates granted by the Board.
5. To furnish to the public, and to interested persons or organizations, a roster of those persons in good standing, having special training, knowledge and competence in Industrial Hygiene as evidenced by certification granted by the corporation.

Web Site: [http://www.abih.org/](http://www.abih.org/)

### 4713 Chemist or Chemical Engineer

For Marine Chemist contacts, refer to section 9270.

### 4720 Scientific Support Coordinator (SSC)

The SSC, a NOAA employee, provides scientific support for response and contingency planning in coastal and marine areas. The SSC assists in:

- assessing the hazards that may be involved.
- Predicts movement and dispersion of oil and hazardous substances through trajectory modeling.
- Provides information on the sensitivity of coastal environments to oil and hazardous substances and associated cleanup and mitigation methods.
- Provides expertise on living marine resources and their habitats, including endangered species, marine mammals and National Marine Sanctuary ecosystems.
- Provides information on actual and predicted meteorological, hydrological, ice, and oceanographic conditions for marine, coastal, and inland waters, and tide and circulation data for coastal and territorial waters.

In certain situations, the SSC could act as the Environmental Unit Leader. SSC support for Northeast and Eastern Central Florida is provided by the U.S. Coast Guard 7th District in Miami, FL. See Appendix 9100 Emergency Notification List for contact information.

### 4721 LOCAL SCIENTISTS

[Reserved for future Area Planning Committee Development].

The Chaffey Amendments to the Oil Pollution Act of 1990 mandates that the Area Committee compile a list of local scientists, both inside and outside Federal Government Service, with expertise in the effects of spills of the types of oil typically transported in the area, who may be contacted to provide information or, where appropriate, participate in meetings of the scientific support team convened in response to a spill.

**Brad Benggio**, NOAA  
(305) 530-7931, (206) 526-4911 (24 hr.)

**Richard Knudsen**, FWCC  
(727)-896-8626, Ext. 3036
4730 Legal
Act in an advisory capacity during an oil spill response.

4731 U.S. Department of Justice
The U.S. Department of Justice provides the highest level of legal advice within the Federal Government. The Environment and Natural Resources Division (ENRD) is responsible for litigation ranging from: protection of endangered species, to global climate change, to cleaning up the nation's hazardous waste sites. Nearly one-half of the Division's lawyers enforce the nation's civil and criminal environmental laws and the health and environment of all Americans. The Division also defends environmental challenges to government programs and activities. It represents the United States in all matters concerning the protection, use, and development of the nation's natural resources and public lands, wildlife protection, Native American rights and claims, and the acquisition of federal property.
http://www.usdoj.gov/
http://www.usdoj.gov/enrd/index.html

4732 U.S. Coast Guard- SFLC Legal Division
The Maintenance and Logistics Command (SFLC) offers legal support within the U.S. Coast Guard. The Chief of the Legal Division is the principle legal advisor and Staff Judge Advocate to Commander, Atlantic Area/Fifth District/Maritime Defense Zone Atlantic, Commander Maintenance and Logistics Command Atlantic, their respective staffs, and subordinate units.
http://www.uscg.mil/SFLC/1ant/1dv/1dv.htm

4733 Florida Office of the Attorney General
[Reserved for future Area Committee Development].

4740 Sampling
Responsible for providing sampling plan for the coordinated collection, documentation, storage, transportation and submittal to appropriate laboratories for analysis or storage.

4750 Disposal (Waste Management) Specialists
Responsible for providing a disposal plan that details the collection, sampling, monitoring, temporary storage, transportation, recycling and disposal of all anticipated response wastes. Refer to Appendix 9330 Disposal for a plan template.

In dealing with oil spills, one of the main problems encountered is what to do with the waste materials, once the cleanup has begun. When dealing with the method of disposal, there are three main areas of concern: ecology, logistics, and finance. What further effects or risks are going to occur due to relocation of the waste material? Ideally, the goal is to dispose of the material without any further hazard generated
or further impacts to the environment, including air, surface water, ground water, and soils. How can waste be safety moved from the site to the disposal and/or treatment area? What is the availability of the machinery needed for removal? What is the capacity of the disposal and/or treatment facility? How much is it going to cost to dispose of the waste? What are the possibilities of recycling the wastes into a useful product to help offset the disposal cost?

Waste material generally fall into one of the following categories:

- Recovered liquids (oil/water mixtures)
- Contaminated absorbents and debris
- Contaminated soil/sand

Liquid waste is probably the easiest form of waste to deal with because it is easily handled, moved, or sometimes can be processed into a useful product. Absorbents are the most widely used products for oil spill cleanup. Organic absorbents, mainly made of straw, are biodegradable. Many new absorbents are synthetic and their biodegradability is greatly reduced. The best absorbent would be one that could be reused, much like a sponge, leaving only liquid waste, which is easily disposed of, thereby reducing cleanup costs and the amount of solid waste generated.

4751 Potential Disposal Methods

4751.1 Recovered Liquid Waste

1. Disposal in accordance with 40 C.F.R. 262.20-23 for RCRA wastes.
2. Recycling (recovery in settling tanks, used oil recyclers).
3. High temperature incineration.
4. Evaporation of light ends.
5. Oxidation.
7. Open burning where permitted.
8. Use as fuel.

4751.2 Contaminated Sorbents and Debris

1. Disposal in accordance with 40 C.F.R. 262.20-23 for RCRA wastes.
2. Incineration at waste-to-energy facilities.
3. Soil thermal treatment facilities (special conditions apply).
4. Class I permitted municipal waste landfill.

4751.3 Contaminated Soils

1. Disposal in accordance with 40 C.F.R. 262.20-26 for RCRA wastes.
2. Soil thermal treatment facilities.
3. Incineration at waste-to-energy facilities.
4752 Waste Disposal Site Selection
[Reserved for future Area Committee Development].

4752.1 Waste Characterization
The first step in determining which method(s) of disposal will be utilized is to characterize the waste and determine if it is subject to the requirements of the Resource Conservation and Recovery Act (RCRA), 40 C.F.R. The Responsible Party’s (RP) knowledge of the material and/or laboratory analysis, and the intended use of the recovered material, must be used to determine if the material meets the criteria for hazardous waste set forth in 40 C.F.R 261.

4752.2 RCRA Regulated Waste
If the material meets the criteria for RCRA regulated wastes, it can only be disposed of at an approved hazardous waste treatment/disposal facility. If the spill is not a hazardous waste listed in 40 C.F.R 261 Subpart D, but exhibits a characteristic of hazardous waste per 40 C.F.R 261 Subpart C, it is possible to treat the waste on-site to render it non-hazardous prior to off-site disposal. The waste generator shall treat hazardous waste in tanks or containers only, provide a waste analysis plan to document treatment, and ensure compliance with 40 C.F.R 262.34 requirements while accumulating and treating the waste. This kind of treatment would include stabilization of soils with cement, neutralization, and other simple forms of non-thermal treatment. Evaporation of organics and dilution are not permissible.

4752.3 Non-RCRA Regulated Wastes
Several options exist for disposal, treatment or recycling of wastes and recovered products that are not subject to RCRA requirements. Following is a brief summary of each option and recommended procedures.

4752.3.1 Used Oil Recyclers
[Reserved for future Area Planning Committee development]

4752.3.2 Waste-to-Energy Incinerators
Waste-to-Energy (WTE) Incinerators produce energy from the incineration of municipal solid wastes. Depending on the nature of the material to be disposed of, WTE facilities may be a viable option for disposal of oil debris and/or soils.

4752.3.3 Soil Treatment Facilities (STFs)
Soil Treatment Facilities (STF’s) remove petroleum contaminants from soil, resulting in clean soil for various uses. STF’s are an option for petroleum contaminated soils, provided that the soils are not
classified as a hazardous waste as defined in 40 C FR 261.

4752.3.4 Land Filling

Land filling of soil and debris, which is non-hazardous and non-saturated in a lined Class I landfill in an acceptable disposal option. Decisions regarding acceptance of wastes are at the discretion of the landfill operator. Laboratory analysis of waste may be required prior to acceptance. In some cases, treatment of petroleum-contaminated soil may include “land farming.” This process involves spreading the soil in a thin layer over an impermeable liner or surface. The contaminant reduction is caused by a combination of volatilization, biodegradation, and photo degradation.

4752.3.5 Contact Water

Contact water is any water that has come in contact or is contaminated with oil. While the RP is expected to provide sufficient containment, collection, and storage resources, the disposal of excess contact water may become necessary if a lack of storage capacity is available in order to ensure an efficient response. The OSC/UC should consider the disposal of contact water as a last resort. The RRT has guidance and checklists to assist the OSC/UC in deciding upon procedures, standards, and monitoring protocols. RRT approval is not required for the disposal of contact water, but State approval may be required.

4760 Alternative Response Technologies

Responsible for evaluating the opportunities to use dispersants, other chemical countermeasures, in-situ burning and bioremediation. This includes a consultation and planning required to deploy and articulate environmental tradeoffs. Refer to Appendices 9710 Response Strategies, 9200 Personnel and Services Directory, 9350 Water Intake, 9760 NCP Product List and 9720.400 Inlet tidal Strategies.

4761 Shoreline Cleanup Assessment

NOAA has a Shoreline Assessment Job Aid, which can aid the response organization in determining the extent of damage along various types of shoreline.


4762 Specialized Monitoring of Applied Response Technologies (SMART)

SMART is used to scientifically monitor the use of dispersants, other chemical countermeasures, or in-situ burns. These operations however, because of their time sensitivity shall not be delayed pending the arrival of SMART monitoring equipment or personnel.

SMART is used to collect scientific information for the Unified Command to provide a measurement of success in the operation and to improve the knowledge about non-mechanical recovery procedures.
4763 Response Technologies (Dispersant, ISB, Bioremediation, Mechanical)

See Annex 1000 of this plan for detailed Alternative Response Technology policy and procedures.

4770 Vessel Salvage and Lightering

This section is a Federal On-Scene Coordinator’s (FOSC) guide to salvage and lightering evolutions, designed to work in concert with the Incident Command System Operational Period Planning Cycle and should be used as a reference before or during an incident in order to assist with initial actions when preparing an Incident Action Plan for salvage and/or lightering evolution. This information is not intended to be an all-inclusive technical guide to vessel salvage or lightering.

4771 Notification of Marine Casualties

4771.1 Requirements of 46 CFR 4

Regulations contained in 46 Part 4 of the Code of Federal Regulations require owners, agents, masters, operators, or persons in charge, immediately after addressing resultant safety concerns, to notify the nearest Coast Guard Sector whenever a vessel is involved in a marine casualty. These casualties include:

1. An unintended grounding or an unintended strike of, or allision, with a bridge;
2. An intended grounding, or an intended strike of a bridge, that creates a hazard to navigation, the environment, or the safety of a vessel;
3. Loss of main propulsion, primary steering, or any associated component or control system that reduces the maneuverability of the vessel;
4. An occurrence that adversely affects the vessel’s seaworthiness or fitness for service or route, including fire, flooding, or failure of or damage to fixed fire extinguishing systems, life saving equipment, auxiliary power generating equipment, or bilge pumping systems;
5. Loss of life;
6. An injury that requires professional medical treatment;
7. Any occurrence resulting in more than $25,000 of property damage, not including salvage cost.

4771.2 Requirements of 33 CFR 160

33 Part 160.215 requires vessels carrying hazardous materials to notify the nearest Coast Guard Sector whenever a hazardous condition exists, either aboard a vessel or caused by a vessel or its operation.
4772 Responsibilities of the Responsible Party

In the case of an incident, the Responsible Party (RP) must take adequate measures to mitigate and/or remove damage, or risk of damage, caused by the vessel or the release of any materials from the vessel. The RP will pay for all legitimate response measures, up to their limit of liability. If an RP cannot be identified, or the acting RP fails to adequately respond, it is the responsibility of the Captain of the Port or FOSC to take over control of a particular aspect of, or the entire response. In this case, funding will be provided by the federal government until an RP is identified and charged for the response.

4773 Types of Marine Casualties

The primary objective in any salvage scenario, whether a single event casualty or combination of casualties, is to minimize the risk to human health, the environment, and property. The following six types of casualties are listed in order of frequency:

4773.1 Hull or Machinery Damage

A vessel’s hull or machinery may be damaged by shifting cargo, storm damage, or other causes, and may render a vessel unable to maneuver. The greatest threats to the vessel, cargo, and environment exist when loss of maneuverability happens close to shore or hazards to navigation. Use of anchors or towing vessels may be the best defense in slowing the unintended movement of a vessel drifting towards a hazard.

4773.2 Stranding or Grounding

Unintentional groundings may result from navigational error, anchor drag, loss of maneuverability, or for other reasons. Ground reaction, which is usually measured in long tons or metric tons, is the weight of the vessel that is being supported by the ocean bottom instead of the water. Ground reaction can cause a vessel to capsize, become holed, break apart, or become difficult to remove from ground. A salver or naval architect can make a good estimate of ground reaction using the information gathered by the crew or response personnel including pre-casualty drafts, post-casualty drafts, tide cycle, location/depth of ground (usually determined with soundings), and the type of bottom. Once ground reaction is determined, it is fairly simple to estimate the force-to-free, which is the measure of the force needed to pull the vessel off the ground. Force-to-free is usually listed in short tons, which is equivalent to tug bollard pull. In order to float a vessel free or pull it off with tugs/ground tackle, ground reaction must usually be reduced in a controlled manner by deballasting, lightering, and/or tidal lifting.

4773.3 Collision

The most common result of a collision at sea is hull damage and flooding. Collisions are sometimes accompanied by fire and explosions, as many ship’s systems and/or cargo may be damaged upon impact. The general priorities after a collision usually include damage assessment, flooding control, and firefighting. Typically, a vessel is not well-equipped to handle rapid flooding, and, when left unchecked,
can lead to capsizing and foundering. Often vessel crews are not well-versed in damage control, requiring a prompt response to ensure professional salvers and marine inspectors are on scene as soon as possible.

4773.4 Fire and Explosion

Fires of any size onboard a vessel should be treated with extreme caution as they may quickly turn into a conflagration. Most commercial vessels will be equipped with fixed fire fighting systems to contain fires started in the engine room (the most common source of shipboard fires). Large commercial vessel crews are generally trained to combat fires that originate in the engine room or accommodation spaces. Crews are generally not trained to fight fires originating in or spreading to the cargo. Most professional salvers offer shipboard firefighting capability – either with in-house resources or via subcontractor capabilities. Shore based fire fighters often do not have an appreciation for the special considerations for shipboard firefighting, especially fixed fire fighting systems or vessel stability, and therefore should be monitored closely when employed to extinguish a fire in port.

4773.5 Allision

Allisions occur when a vessel strikes a fixed object. Most of the considerations are the same as a collision, with the addition of assessing the damage sustained by the object, especially if the object was a bridge or critical piece of infrastructure. Immediate notification should be made to the Army Corp of Engineers and Federal and State Departments of Transportation. Appropriate actions should be taken to ensure the object does not pose a risk to future transportation onshore or to other vessels.

4773.6 Stress Fractures

Stress fractures are failures in the construction of the vessel and may be due to stresses imposed on a vessel because of a heavy seaway, improper loading or ballasting, or construction material fatigue. Cracks can lead to pollution or flooding incidents and, under extreme circumstances, total ship loss. Therefore, it is important to quickly assess the size, location, and orientation of the crack. Surveyors, shipyards, and Coast Guard Marine Inspectors are familiar with methods to arrest or repair cracks.

4774 Initial Response and Casualty Assessment

Common to all casualties is a need for the quick and substantial allotment of response resources. The Unified Command will set the objectives of a vessel casualty response. Early dissemination of an accurate assessment of the vessel’s condition and deployment of appropriate response resources is essential.

4774.1 Initial Actions taken by the Crew

A prudent vessel captain will take certain actions to mitigate the threat to the crew and vessel. Upon
receiving notification of a marine casualty, the Incident Commander should verify that the vessel master, if possible and appropriate, has taken the following actions listed below:

<table>
<thead>
<tr>
<th>Initial actions to be taken by vessel’s crew</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have ship’s personnel report to emergency stations</td>
</tr>
<tr>
<td>Secure watertight fittings</td>
</tr>
<tr>
<td>Take appropriate fire fighting actions</td>
</tr>
<tr>
<td>Notify the ship’s operations controller</td>
</tr>
<tr>
<td>Obtain an accurate cargo storage plan</td>
</tr>
<tr>
<td>Request shore personnel request salvage assistance</td>
</tr>
<tr>
<td>Display day shapes &amp; sound appropriate signals</td>
</tr>
</tbody>
</table>

### 4774.2 CRITICAL INFORMATION

There is certain information that is critical to planning a successful salvage operation. This information, essential to the response planning process, should be gathered from the vessel master or on-scene response personnel, as appropriate to the situation. The information gathered should be used to determine the “window of opportunity” - i.e., when the most factors align for a successful operation. Refer to the chart below for incident-specific critical information that should be gathered and shared with all interested parties.

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

<table>
<thead>
<tr>
<th>Incident</th>
<th>Critical Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Incidents</td>
<td>Safety status of crew</td>
</tr>
<tr>
<td></td>
<td>Proximity to navigation hazard</td>
</tr>
<tr>
<td></td>
<td>On-scene weather conditions</td>
</tr>
<tr>
<td></td>
<td>Forecasted weather conditions</td>
</tr>
<tr>
<td></td>
<td>Contracted resources</td>
</tr>
<tr>
<td></td>
<td>Potential damage / breaches in hull</td>
</tr>
<tr>
<td></td>
<td>Potential for spill or plume</td>
</tr>
<tr>
<td></td>
<td>Status of ground tackle</td>
</tr>
<tr>
<td></td>
<td>Communications nature and schedule</td>
</tr>
<tr>
<td></td>
<td>Quantity/nature of cargo/fuel/ballast</td>
</tr>
<tr>
<td></td>
<td>Status of propulsion &amp; steering</td>
</tr>
<tr>
<td>Grounding</td>
<td>Pre-casualty drafts</td>
</tr>
<tr>
<td></td>
<td>Post-casualty drafts</td>
</tr>
<tr>
<td></td>
<td>Tide height at grounding</td>
</tr>
<tr>
<td></td>
<td>Location/depth of soundings</td>
</tr>
<tr>
<td></td>
<td>Time/Height of next high tide</td>
</tr>
<tr>
<td></td>
<td>Liquid level of all tankage</td>
</tr>
<tr>
<td></td>
<td>Availability of salvage resources</td>
</tr>
<tr>
<td>Bottom type</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td></td>
</tr>
<tr>
<td>Fire</td>
<td></td>
</tr>
<tr>
<td>Status of shipboard fire pumps</td>
<td></td>
</tr>
<tr>
<td>Status of fixed firefighting systems</td>
<td></td>
</tr>
<tr>
<td>Risk of further damage to vessel</td>
<td></td>
</tr>
<tr>
<td>Status of emergency electrical systems</td>
<td></td>
</tr>
<tr>
<td>Availability of fire fighting resources</td>
<td></td>
</tr>
<tr>
<td>Collision/Allision/Flooding</td>
<td></td>
</tr>
<tr>
<td>Relative stability of each vessel</td>
<td></td>
</tr>
<tr>
<td>Status of ships dewatering systems</td>
<td></td>
</tr>
<tr>
<td>DOT, ACOE, State notified (allisions)</td>
<td></td>
</tr>
</tbody>
</table>
4774.3 IDENTIFY RESPONSE AND SALVAGE ASSETS

The RP should immediately contract and set into motion adequate response and salvage resources. Historically, there has been reluctance on behalf of the vessel’s representatives to engage a professional salver. A decision to attempt operations without a professional salver should be examined critically by the FOSC. To assist the RP in contracting a professional salver, the FOSC may share information of proven response and salvage resources. In addition to ensuring that the RP has contracted adequate response resources, the FOSC should identify and deploy appropriate Coast Guard resources to respond to the incident. These response teams should include unit Pollution Investigators, Casualty Investigators, and Vessel Inspectors. Furthermore, the SERT team at the Marine Safety Center should be engaged and, potentially, the Navy SUPSALV. Contact numbers for these assets may be found in Section 9200.

4775 Setting the First Operational Objectives

Once enough information has been gathered to proceed with a decisive action plan, the USCG Operational Commander, IC or UC will set forth the operational period objectives. These objectives may include but are not limited to:

1. Evacuate crew
2. Control vessel movement
3. Get response personnel and equipment on-scene
4. Extinguish shipboard fire
5. Stop/slow flooding
6. Stop/slow vessel movement toward potential hazards
7. Contain pollution
8. Identify suitable port of refuge
9. Create a salvage plan
10. Mitigate potential impacts of the casualty on other vessel traffic and port activities
11. Evaluate risk to public- i.e., hazardous material release, air quality, etc.
12. Prepare and approve press release
13. Establish a safety zone
14. Contact all appropriate Federal, State and local agencies, as well as foreign governments
15. Evaluate/mitigate the environmental impacts of incident
16. Identify an appropriate lightering vessel.

4776 Oil/Hazardous Material Release Mitigation and Lightering

Oil spills or hazardous material releases are of the greatest potential during groundings and almost a certainty during a major collision or other event when there is a breach in the hull. There are several ways to establish if there is an oil spill or hazardous material release. The primary method may be observation of a sheen emanating from the damaged vessel. However, this method may be of limited usefulness at night and is not indicative of damages inboard of the hull structure. Bunker and cargo tanks should be immediately sounded and monitored closely for changes that would indicate a breach. Given the high correlation between major marine casualties and pollution incidents, it is prudent to provide, at a minimum, a containment boom to surround the vessel(s).
4776.1 LIGHTERING

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

4777 Vessel/Cargo Salvage Plan Review

A plan is essential to any successful salvage operation. Depending on the urgency and complexity of the operation, the quality of the plan may vary from a bound document approved by engineers to a sketch on a cocktail napkin. All involved parties must ensure that the plan provided is appropriate given the constraints of the operation. Given optimal conditions as well as time and resources available, a complete salvage plan will include the elements listed in the chart in section 4777.1.

When evaluating a salvage plan, it is essential to rely upon the resources available to an IC or UC for these particular incidents. The two major public resources are the Coast Guard’s SERT and the Navy’s SUPSALV. Information on these resources and their contact information are provided in Section 9213 of this plan.

4777.1 ELEMENTS OF A SALVAGE PLAN

<table>
<thead>
<tr>
<th>All Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-incident drafts fore and aft</td>
</tr>
<tr>
<td>Cargo listing / volume</td>
</tr>
<tr>
<td>Fuel volume</td>
</tr>
<tr>
<td>Status of vessel propulsion and steering systems</td>
</tr>
<tr>
<td>Post casualty drafts</td>
</tr>
<tr>
<td>Contingency planning identifying possible failure points</td>
</tr>
<tr>
<td>Lightering considerations</td>
</tr>
<tr>
<td>Clear understanding or contractual agreement of responsibility for control of vessel</td>
</tr>
<tr>
<td>Strength of hull girder, damaged areas, attachment points, and rigging</td>
</tr>
<tr>
<td>Booming considerations</td>
</tr>
<tr>
<td>Means for controlling interference between pollution response and salvage efforts</td>
</tr>
<tr>
<td>Potential pollution risks and precautions to avoid or minimize impact</td>
</tr>
<tr>
<td>Communications plan</td>
</tr>
</tbody>
</table>
### Anticipated start time and predicted tides, currents, weather

#### Grounding
- Post casualty drafts/locations/soundings
- Bottom type
- Estimated ground reaction
- Force-to-free
- Towing assets available/utilized and horse power of each
- Predicted stability when re-floated
- A summary of the engineering rationale for retraction & refloating techniques
- Tow/rigging plan including attachment points

#### Lightering
- Volume of cargo/fuel to be lightered
- Type of cargo to be lightered
- Identification of compatible receiving facilities
- Special procedures to handle hazardous cargo/materials

#### Flooding
- Identification and listing of all dewatering systems to be employed
- Order of dewatering to ensure satisfactory stability of vessel

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

### 4778 Resources

In addition to mobilizing unit investigators, inspectors, and responders, the first calls of a response should include contact with these resources. The missions of these resources are explicitly to assist Incident Commanders and on-scene response personnel in addressing matters of vessel salvage. In the table provided below, a number one indicates the best suited resource, while a two indicates a capable, though secondary resource. It is important to note that employing either a commercial salver or Navy SUPSALV will require a funding source.

<table>
<thead>
<tr>
<th></th>
<th>Commercial Salver</th>
<th>SERT Team*</th>
<th>Strike Team*</th>
<th>Navy SUPSALV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vessel Assessment</td>
<td>1</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Pollution Assessment</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salver Equipment</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Salvage Plan Assessment</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
* Coast Guard teams will provide services to a Coast Guard unit at no cost.

4778.1 Marine Safety Center Salvage Emergency Response Team (SERT)

Excerpt below from http://www.uscg.mil/hq/msc/:

The Marine Safety Center Salvage Emergency Response Team (SERT) is on call to provide immediate salvage engineering support to the Coast Guard Captains of the Port (COTP) and Federal On-Scene Coordinators (FOSC) in response to a variety of vessel casualties. Specifically, SERT can assist the COTP and FOSC manage and minimize the risk to people, the environment, and property when responding to vessels that have experienced a casualty. SERT provides this assistance by performing numerous technical evaluations including: assessment and analysis of intact and damaged stability, hull stress and strength, grounding and freeing forces, prediction of oil/hazardous substance outflow, and expertise on passenger vessel construction, fire protection, and safety.

SERT has mobile computing capability for on-scene deployment. The MSC maintains a database containing over 5,000 hull files that can be used to generate computer models of vessels used in salvage engineering. External relationships with organizations like the Navy Supervisor of Salvage (SUPSALV), Coast Guard Intel Coordination Center, and the Office of Naval Intelligence (ONI), as well as all major class societies, also enable the salvage team to quickly locate and transfer information about a damaged vessel that would otherwise be difficult to access.

When requesting SERT assistance, the Rapid Salvage Survey Form, which contains the minimum essential casualty details, should be utilized; call (202) 327-3985/3987 (24 hours) or the Coast Guard Command Center at (800) 323-7233 (24 hours). The Survey form and the information required for the creation of a salvage plan are available at: //www.uscg.mil/hq/msc/.

4778.1.1 SERT RAPID SALVAGE SURVEY

Info on the Marine Safety Center and Salvage Engineering Response Team can be found at:

http://www.uscg.mil/hq/msc/

The survey is located below. Fill this sheet out as completely as possible when seeking salvage engineering assistance. All fields marked with an “*” are necessary for increased accuracy of salvage calculations.
### Rapid Salvage Survey

Fill this sheet out as completely as possible, when seeking salvage engineering assistance, and contact the SERT duty member using the contact information listed on page 2 of this document. All fields marked with an asterisk (*) are necessary for increased accuracy of salvage calculations. This document can be found by searching for “Salvage Engineering” on the Coast Guard Homeport site at http://homeport.uscg.mil.

**Vessel Name:** ________________  **O.N. & Class Society:** ________________

**Dimensions:** *Length:_ _____ *Beam:_ _____ *Depth:_ _____

(keel to deck)

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

**Vessel Type:**
- □ Barge Carrier
- □ Barge w/o rake
- □ Barge w/rake
- □ Tank Ship
- □ Bulk Carrier
- □ Break Bulk
- □ Containership
- □ RO/RO
- □ LPG/LNG Carrier
- □ OBO
- □ Other: _______________________

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

- □ Fire
- □ Explosion
- □ Flooding
- □ Sinking
- □ Structural Damage
- □ Grounding
- □ Collision/Allision
- □ Capsizing
- □ Oil/HAZMAT spill
- □ Other: _______________________

**Date/Time of Casualty:** ____________  **Position:**  

- Lat: ____________  
- Long: ____________

### *Drafts*

<table>
<thead>
<tr>
<th>Pre-Casualty</th>
<th>Post-Casualty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date/Time Taken:</td>
<td>Date/Time Taken:</td>
</tr>
<tr>
<td>Port</td>
<td>Starboard</td>
</tr>
<tr>
<td>Forward</td>
<td></td>
</tr>
<tr>
<td>Midships</td>
<td></td>
</tr>
<tr>
<td>Aft</td>
<td></td>
</tr>
</tbody>
</table>

### *Bottom Type*

- □ Silt/sand
- □ Sand
- □ Coral
- □ Rock
- □ N/A

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

Provide water depth information as applicable: ______________________________

At Time Of Incident High Low Exp. Total Change _____
4778.2 U.S. Coast Guard Strike Teams

The National Strike Force (NSF) was established in 1973 as a direct result of the Federal Water Pollution Control Act of 1972. The NSF’s mission is to provide highly trained, experienced personnel and specialized equipment to Coast Guard and other federal agencies to facilitate preparedness and response to oil and hazardous substance pollution incidents in order to protect public health and the environment. The NSF’s area of responsibility covers all Coast Guard Districts and Federal Response Regions.

The Strike Teams provide rapid response support in incident management, site safety, contractor performance monitoring, resource documentation, response strategies, hazard assessment, oil spill dispersant and operational effectiveness monitoring, and high capacity lightering and offshore skimming capabilities.

National Strike Team Coordination Center: 252-331-6000 (24 hours).

4778.3 NAVSEA SUPERVISOR OF SALVAGE AND DIVING (SUPSALV)

The Office of the Director of Ocean Engineering, Supervisor of Salvage and Diving (SUPSALV), is a component of the Naval Sea Systems Command (NAVSEA). SUPSALV is located at the Washington Navy Yard in Washington, DC. SUPSALV is responsible for all aspects of ocean engineering, including salvage, in-water ship repair, contracting, towing, diving safety, and equipment maintenance and procurement.

The Salvage Operations Division maintains standing worldwide commercial contracts for salvage, emergency towing, deep ocean search and recovery operations, and oil pollution abatement. Additionally, they own, maintain and operate the worldwide Emergency Ship Salvage Material (ESSM) system, which incorporates the world's largest standby inventory of salvage and pollution abatement equipment. They also own, maintain, and operate a large number of deep ocean search and recovery systems, with depth capabilities up to 20,000 feet. They also routinely provide salvage technical assistance to fleet salvers, as well as to other federal agencies.

Within the National Oil and Hazardous Substance Pollution Contingency Plan (NCP), SUPSALV has been assigned as 1 of 7 "Special Teams" available to the Federal On-Scene Coordinator (FOSC). Thus, they provide assistance (personnel and/or equipment) for commercial oil or hazardous substance spills, or potential spills (i.e., salvage operations), as requested by any FOSC. Assistance ranges from salvage technical or operational assistance to mobilization of SUPSALV and other Navy resources to support a partial or full federal response to a marine casualty. Be aware, however, these services are provided on a reimbursable basis only – they are not free.

4778.4 American Salvage Association

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

4779 References


Cook Inlet Subarea Contingency Plan, July 1997. Available at: http://akrrt.org/Ciplan/CookInletSCP.shtml


NAVSEA Instruction 4740.8 (series), Salvage, Recovery and Open Sea Spill Response Programs.


OPNAV Instruction 4740.2 (series), Salvage and Recovery Program.


4880 REQUIRED CORRESPONDENCE, PERMITS, AND CONSULTATION

4810 Administrative Orders

An administrative/directive order is a tool used by the FOSC to ensure appropriate actions are being taken by a Responsible Party in a potential threat or actual spill, or FWPCA hazardous material release. The Oil Pollution Act of 1990 amended the Federal Water Pollution Control Act and provided more authority to FOSC's to direct the removal actions in response to discharges of oil or FWPCA hazardous substances. Under 33 USC 1321 (c) and (e), an FOSC may now issue orders to responsible parties to ensure effective and immediate removal of a discharge or the mitigation or prevention of a substantial threat of a discharge of oil or FWPCA hazardous substance. An FOSC may also issue administrative orders "that may be necessary to protect public health and welfare". FOSC's needing to issue an administrative order under the FWPCA can contact (G-MOR-3) for interim guidance and examples.
4820 Notice of Federal Interest

The Notice of Federal Interest (NOFI) is used to designate and notify the owners, operators or persons in charge, in writing that an oil pollution incident occurred or threatens to occur and that specified personnel may be financially responsible for that incident. The responsible party is liable for among other things, removal costs and damages resulting from the incident. The NOFI notifies the responsible party that the failure or refusal to provide all reasonable cooperation and assistance requested by the Federal On-Scene Coordinator (FOSC) will eliminate any defense, or entitlement to limited liability. The NOFI notifies the responsible party that failure to properly carry out the removal of the discharge, or comply with any administrative order of the FOSC may result in civil penalties or up to three times the cost incurred by the Oil Spill Liability Trust Fund. For an example of an NOFI, reference the NPFC User Reference Guide.

4830 Notice of Federal Assumption
Reference COMDTINST M16000.11, Coast Guard Marine Safety Manual, Volume VI, Chapter 7.B.3.d.

The Notice of Federal Assumption (NOFA) is used to notify the responsible party of an oil pollution discharge and to advise he/she is financially responsible. The NOFA also advises that their actions to abate the threat or removal of oil from the waters, or adjacent shoreline have been evaluated as being unsatisfactory by the U.S. Coast Guard's Federal On-Scene Coordinator and that the U.S. Coast Guard will conduct oil response/removal activities under federal statues. For an example of an NOFA, reference the National Pollution Funds Center User Reference Guide.

4840 Letter of Designation
Reference COMDTINST M16000.11, Coast Guard Marine Safety Manual, Volume VI, Chapter 7.

Notice of Designation of Source Policy. Designation of a source under section 1014 of OPA 90 is done to fulfill the requirements relating to the dissemination of information about an incident, through advertisements, so that potential claimants will be aware of the opportunity and procedures for submitting claims for uncompensated removal costs or damages. Exact specification and types of advertisement required are provided in the letter issued by the NPFC. OPA provides that designation of source is done where "possible and appropriate." “Technical Operating Procedures for Designation of Source” should be referenced:

http://uscg.mil/npfc/URG/default.asp

Sector Jacksonville will not issue Notices of Designations. The National Pollution Funds Center (NPFC) will designate the source, notify the reporting party/guarantor, and set the advertising requirements. In the event that it appears there is a reasonable possibility for claims in a given incident, but the source is not known, the OSC immediately notifies the NPFC. The NPFC will then advertise as required under section 1014(c) of OPA.
4850 Fish and Wildlife Permits
[Reserved for future Area Committee Development]

4860 Fish and Wildlife Acts Compliance (Migratory Bird Act, Marine Mammal Act, Endangered Species Act, etc)

4861 Endangered Species Act: Memorandum of Agreement
Refer to the following website: http://uscg.mil/npfc/URG/default.asp

4862 Endangered Species Act Implementation Guidelines for Consultation Process (Draft)
Refer to the following website: http://uscg.mil/npfc/URG/default.asp

4870 Disposal
[Reserved for future Area Committee Development]

4871 Ocean Dumping
If the OSC/UC decides that either a stricken vessel or its cargo would best be disposed of at sea, after other disposal methods have been ruled as unacceptable, the RRT can assist in obtaining the appropriate permits from the EPA. RRT III has guidance and checklists to assist the OSC/UC in requesting emergency ocean dumping. 40 CFR 220.3(c) also contains guidance on emergency dumping permits.

4872 Use of Foreign-Flag Vessels
If the OSC/UC cannot find U.S.-flagged vessels or barges to support the collection and storage of oils or hazardous materials, serve as reception vessels for lightering, support salvage operations, or other needs, the OSC/OC may use foreign-flagged vessels, if a Limited Jones Act Waiver is obtained. The RRT has guidance and checklists to assist the OSC/UC in obtaining a waiver from the U.S. Customs and Border Protection.

4880 Dredging
[Reserved for future Area Committee Development]
4900 Reserved for Area/District
[Reserved for future Area Committee Development]
Northeast and Eastern Central Florida Area Contingency Plan

Annex 5000: Logistics
# 5000 Logistics

Refer to the Incident Management Handbook (IMH) for the Incident Command System prepared by USCG, Office of Response (G-MOR-3) for specific information on all duties and positions. Refer to Appendix Incident Management Handbook for the IMH and ICS Forms Database for ICS forms. This section will only provide a brief overview and information specific to Northeast and Eastern Central Florida.

## 5100 Logistics Section Organization

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5110 Logistics Section Responsibilities</td>
<td>4</td>
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<tr>
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</tr>
<tr>
<td>5193 Third Operational Period (24-48 Hours)</td>
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</tr>
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</table>

## 5200 Logistics Support Branch Functions, Resources and Capabilities

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</tr>
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## 5300 Logistics Service Branch Functions, Resources and Capabilities

<table>
<thead>
<tr>
<th>Branch</th>
<th>Page</th>
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<tbody>
<tr>
<td>Medical Unit</td>
<td>18</td>
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<tr>
<td>Food Unit</td>
<td>18</td>
</tr>
<tr>
<td>Communications Unit</td>
<td>19</td>
</tr>
</tbody>
</table>

## 5400 Places of Refuge

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## 5500 Reserved

Page 21

## 5600 Reserved

Page 21
5100 Logistics Section Organization

The Logistics Section is responsible for providing facilities, all services and materials needed for the incident. The Incident Commander will determine the need to establish a Logistics Section on the incident. This is usually determined by the size of the incident, complexity of support, and how long the incident may last. Once the IC determines that there is a need to establish a separate Logistics function, an individual will be assigned as the Logistics Section Chief.

Six functional units can be established within the Logistics Section. Branches and Units in the Logistics Section are shown in Figure 1.

![Figure 1 - Logistics Section Organization]
5110 Logistics Section Responsibilities

Responsible for providing facilities, services and material in support of the incident. Participates in the development and implementation of the IAP and activates and supervises branches and units within this Section. Refer to Appendices 9200 Personnel and Services Directory, Communication Plan and ICS Form Database for additional information.

5120 Logistics Functions in Small Responses

[Reserved for future Area Committee development].

5130 When to scale up the Logistics Section

[Reserved for future Area Committee development].

5140 Logistics Section Chief Responsibilities

The Major responsibilities of the Logistics Section Chief are:

- Review common responsibilities.
- Plan the organization of the logistics section.
- Assign work locations and preliminary work tasks to section personnel.
- Notify the resources unit of the Logistics Section Units activated including names and locations of assigned personnel.
- Assemble and brief Branch Directors and Unit Leaders.
- Participate in preparation of the IAP.
- Identify service and support requirements for planned and expected operations.
- Provide input and review the Communications Plan, Medical Plan and Traffic Plan.
- Coordinate and process requests for additional resources.
- Review the IAP and estimate Section needs for the next operational period.
- Advise on current service and support capabilities.
- Prepare service and support elements of the IAP.
- Estimate future service and support requirements.
- Receive incident Demobilization Plan from the Planning Section.
- Recommend release of Unit resources in conformity with Incident Demobilization Plan.
- Ensure the general welfare and safety of the Logistics Section personnel.
- Maintain Unit Activity Log ICS Form 212.

5150 Typical Logistics Assignments in Northeast Florida

[Reserved for future Area Committee development].

5160 Typical Logistics Assignments in Eastern Central Florida

[Reserved for future Area Committee development].
5170 Logistics Training
[Reserved for future Area Committee development].

5180 Logistics References
[Reserved for future Area Committee development].

5190 Logistics Section Objectives
[Reserved for future Area Committee Development]

5191 First Operational Period (0-4 Hours)
- Establish section at direction of Unified Command.
- Identify resources and vendors required by Operations Section and initiate ordering activities in coordination with Finance Section.
- Identify personnel requirements and initiate ordering activities.
- Establish personnel check in procedures.

5192 Second Operational Period (4-24 Hours)
- Identify and contract for a Unified Command Post as directed by the Unified Commanders.
- Begin equipping the Command Post.
- Mobilize additional response resources as necessary.
- Receive and process all ordered supplies and either store them or dispatch them to the field for use.
- Identify support resources needed by personnel and equipment, initiate, procurement process via the Finance Section.
- As personnel arrive, ensure that they receive an initial incident briefing, are checked in, and are assigned to the appropriate section.
- As possible, ensure that reliefs are provided for initial responders as in-coming personnel become available.

5193 Third Operational Period (24-48 Hours)
- Mobilize additional resources as necessary.
- Establish a resource tracking system to capture use/work/standby hours for all personnel/equipment assigned to the response.
- Develop personnel rotation schedules and relief process in coordination with Operations and Planning Sections. The schedules must ensure that temporarily assigned personnel effectively brief their reliefs prior to departure and that they are not held beyond their parent organization’s allowable work schedules.

5200 Logistics Support Branch Functions, Resources and Capabilities
This section describes the overall functioning of the Support Branch within the Logistics Section.
5210 Support Branch Responsibilities

Responsible for development and implementation of logistics plan in support of the IAP, including providing personnel, equipment, facilities, and supplies to support incident operations.

5220 Summary of Suppliers

Summary of Area Equipment

The equipment lists provided below include equipment with the primary purpose of spill response. The list provided has been listed by equipment type in tabular form making it easier for the planner to assess the general response capability to a particular class of response.

Equipment is also divided into local, area, and regional response organizations. Definitions of local, area, and regional are as follows:

1. Local response organizations either own or operate equipment and are within the area of responsibility of this plan. These organizations should be able to respond to any area within the area of responsibility in less than four hours.

2. Area response organizations are either own or operate equipment but are outside the area of responsibility of this plan. These organizations can be expected to be able to reach the Jacksonville area with heavy equipment by road in less than 12 hours.

3. Regional response organizations are those with extensive response capability. They are greater than 12 hours travel time by road.

The Spill Response Resource Inventory (SRRI), compiled by the NSFCC, should be utilized to identify additional equipment located outside the area covered by this contingency plan.

Please see section 9213 of this plan for the addresses, phone numbers, and points of contact of companies that supply response equipment, such as boom, skimmers, vacuum trucks, and work boats.

5221 Towing Companies

The following is a list of towing companies in the area covered by this plan:

<table>
<thead>
<tr>
<th>Company</th>
<th>Phone Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal Tug and Barge</td>
<td>(305) 551-5454</td>
</tr>
<tr>
<td>Cross States Towing Co. Inc</td>
<td>(904) 781-5736</td>
</tr>
<tr>
<td>Crowley Maritime Corporation</td>
<td>(904) 727-2200</td>
</tr>
<tr>
<td>Dixie Towing Corporation</td>
<td>(904) 251-3111 or 249-1312</td>
</tr>
<tr>
<td>McAllister Towing of Florida</td>
<td>(904) 751-6228</td>
</tr>
<tr>
<td>Mobro Marine Inc. (Jacksonville)</td>
<td>(904) 737-4401</td>
</tr>
<tr>
<td>(Green Cove Yard)</td>
<td>(904) 358-2869</td>
</tr>
<tr>
<td>Sun State Marine Inc</td>
<td>(904) 264-6582 or 246-5682</td>
</tr>
<tr>
<td>Trailer Bridge Inc</td>
<td>(904) 751-7107</td>
</tr>
<tr>
<td>Canaveral Towing &amp; Salvage</td>
<td>(407) 784-8697</td>
</tr>
<tr>
<td>International Towing &amp; Salvage</td>
<td>(407) 799-8697</td>
</tr>
<tr>
<td>Port Canaveral Towing Inc</td>
<td>(321) 784-4358</td>
</tr>
<tr>
<td>Moran Towing of Florida</td>
<td>(904) 632-4990</td>
</tr>
</tbody>
</table>
Sea Tow Services/Sea Spill (JAX)  (St. Augustine)  (Port Canaveral)
(904) 220-7500  (904) 824-9969  (321) 868-4900

Boat US (Fernandina)  (Jacksonville)  (St. Aug. – Daytona - Titusville)  (Port Canaveral)
(904) 277-8511  (904) 223-7541  (386) 322-5582  (321) 302-9097

Seabulk International Towing
(321) 799-2827 or 784-4358

Beyel Brothers Crane Service
(321) 868-0161

### 5222 Aircraft

The following is a list of aircraft rental companies in the area covered by this plan:

<table>
<thead>
<tr>
<th>Company</th>
<th>Address</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Airways, Jacksonville, FL</td>
<td><a href="http://www.corporate-airways.com">www.corporate-airways.com</a></td>
<td>(904) 641-0001</td>
</tr>
<tr>
<td>FL Aviation Career Training, Jacksonville, FL</td>
<td><a href="http://www.florida-aviation.com">www.florida-aviation.com</a></td>
<td>(904) 642-3912</td>
</tr>
<tr>
<td>Florida Institute of Technology</td>
<td><a href="http://www.fit.edu">www.fit.edu</a></td>
<td>(321) 674-6500</td>
</tr>
<tr>
<td>Island Aviation, Merritt Island, FL</td>
<td><a href="http://www.islandaviation.com">www.islandaviation.com</a></td>
<td>(321) 453-2222</td>
</tr>
</tbody>
</table>

### 5223 Safety Equipment

The following is a list of safety equipment suppliers in the area covered by this plan:

An AMERICA SAFETY SYSTEMS INC.
3525 Smithfield Street
Jacksonville, FL
(904) 733-1313

ENVIRONMENTAL SAFETY PRODUCTS
11328 Business Park Blvd.
Jacksonville, FL
(904) 260-4383

HOLLEY EDWARDS SALES INC.
650 Talleyrand Avenue
Jacksonville, FL
(904) 355-1671

JACKSONVILLE FIRE & SAFETY EQUIPMENT CO. INC.
1420 Advantage Way, So.
Jacksonville, FL 32218
(904) 356-1672 24hr  (904) 355-5210 FAX

SOUTH ATLANTIC CO. INC.
915 South Edgewood Avenue
Jacksonville, FL
(904) 388-0511
5230 Facilities
5231 Staging Areas
There are two container terminals in the Jacksonville area. These facilities normally have significant uncovered space available for staging trucks and equipment. Cranes for loading equipment onto or off of vessels are readily available. Due to the height of the docks these areas are not readily compatible with small boat operations. Any use of these terminals for other than storage will have an impact on commercial operations. Resistance to use from the Ports Authority can be expected.

In the port of Cape Canaveral the most suitable staging areas may be the public boat ramps at Ports End Park or Dolphins Leap Marina. The roll-on/roll-off (RO/RO) ramp by the cruise terminals may be used for staging or setting up a command post if a ship is not berthed at the ramp. The Canaveral-Brevard County Spillage Cleanup Committee, Inc. stores response equipment at this site. Access is continuously available through the Mid-Florida Freezer gate on Heron Street.

A spill occurring off the tip of the Cape with a south wind may contaminate beaches on NASA property or the Canaveral National Seashore. The only unrestricted access to the area is on Playalinda Beach north of the Cape, via State Road 402 from Titusville. Public access gates on State Road 402 may be closed if a Space Shuttle is within 72 hours of launch. The security contractor for NASA, EG&G, should be contacted at (407) 867-2121 if access is needed.

If a spill occurs in the Indian River north of State Road 528 the equipment may be staged at the public boat ramp at Sharpes at U.S. 1, the Coast Guard Auxiliary facility or the Titusville Marina ramps in Titusville on State Road 402, or Kelly Park on State Road 528 on the west side of the Banana River. The causeways along the NASA Parkway, State Road 528, and State Road 520 may also facilitate limited deployment capabilities.

A spill occurring in the Banana River north of State Road 528 could be accessed via Kelly Park. Precautions should be taken to restrict vessel traffic in the Barge Canal, or locks, if spilled materials or cleanup operations pose a danger to navigation.

The following is a list of airports that could be used as staging areas:

<table>
<thead>
<tr>
<th>AIRPORT</th>
<th>RUNWAY</th>
<th>PHONE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jacksonville International</td>
<td>07/25:8000 X 150</td>
<td>(904) 741-4902</td>
</tr>
<tr>
<td></td>
<td>13/31:7700 X 150</td>
<td></td>
</tr>
<tr>
<td>Craig Municipal, Jacksonville</td>
<td>05/23:4001 X 100</td>
<td>(904) 641-7666</td>
</tr>
<tr>
<td></td>
<td>14/32:4007 X 100</td>
<td>ATC 641-3022</td>
</tr>
<tr>
<td>Herlong, Jacksonville</td>
<td>14/32:4007 X 100</td>
<td>(904) 783-2805</td>
</tr>
<tr>
<td></td>
<td>05/23:4001 X 100</td>
<td>e-mail: <a href="mailto:aimeeh@jaxairports.org">aimeeh@jaxairports.org</a></td>
</tr>
<tr>
<td>North East Florida Regional</td>
<td>02/20:2610 X 75</td>
<td>(904) 209-0090</td>
</tr>
<tr>
<td>Airport</td>
<td>06/24:2701 X 75</td>
<td>Fax (904) 209-0528</td>
</tr>
<tr>
<td></td>
<td></td>
<td>E-mail: flynf.com</td>
</tr>
</tbody>
</table>
5232 Fueling Facilities

Land based fueling facilities will not be addressed in this exhibit due to their wide availability. Little difficulty is normally experienced in finding gas stations which will take Federal Government credit cards.

The following Marine Fueling Facilities can provide both gasoline and diesel fuel for response vessels:

<table>
<thead>
<tr>
<th>AIRPORT</th>
<th>RUNWAY</th>
<th>PHONE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>13/31:6939 X 150</td>
</tr>
<tr>
<td>Daytona Beach</td>
<td>Inlet Harbor Marina</td>
<td>(904) 761-6033</td>
</tr>
<tr>
<td>Fernandina Beach</td>
<td>Amelia Island Yacht Basin</td>
<td>(904) 277-4615</td>
</tr>
<tr>
<td></td>
<td>Fernandina Harbor Marina</td>
<td>(904) 491-2090</td>
</tr>
<tr>
<td>Jacksonville</td>
<td>Arlington Marina</td>
<td>(904) 743-2628</td>
</tr>
<tr>
<td></td>
<td>Lamb's Yacht Center</td>
<td>(904) 384-5577</td>
</tr>
<tr>
<td></td>
<td>Mayport Marine</td>
<td>(904) 246-8929</td>
</tr>
<tr>
<td></td>
<td>Monty's Marina</td>
<td>(904) 246-7575</td>
</tr>
<tr>
<td></td>
<td>Pablo Creek Marina Inc N/A</td>
<td>(404) 352-2800</td>
</tr>
<tr>
<td></td>
<td>Pelican Creek Boatyard &amp; Marina</td>
<td>(904) 292-5270</td>
</tr>
<tr>
<td>Melbourne</td>
<td>Anchorage Yacht Basin Inc.</td>
<td>(321) 773-3620</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(321) 729-8400 Fax</td>
</tr>
<tr>
<td></td>
<td>Harbor Marine Of Brevard Inc.</td>
<td>(321) 725-9054</td>
</tr>
<tr>
<td></td>
<td>Intracoastal Marina Melbourne Inc.</td>
<td>(321) 725-0090</td>
</tr>
<tr>
<td>Merritt Island</td>
<td>Indian Cove Marina, Inc.</td>
<td>(321) 452-8540</td>
</tr>
<tr>
<td></td>
<td>Sea Ray Boats Inc.</td>
<td>(321) 452-6710</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(321) 454-4799</td>
</tr>
<tr>
<td></td>
<td>Tingley's Rv Park &amp; Fish Camp</td>
<td>(321) 452-0504</td>
</tr>
<tr>
<td>Palatka</td>
<td>Boathouse Marina</td>
<td>(386) 328-2944 24hr</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(386) 325-3932 Fax</td>
</tr>
<tr>
<td>Ponce de Leon Inlet</td>
<td>Lighthouse Boat Yard &amp; Yacht Sales</td>
<td>(386) 767-0683</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(386) 767-0696</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(386) 767-8819 Fax</td>
</tr>
<tr>
<td>Saint Augustine</td>
<td>Camachee Cove Yacht Harbor</td>
<td>(904) 829-5676</td>
</tr>
<tr>
<td></td>
<td>Conch House Marina Resort</td>
<td>(904) 829-8646</td>
</tr>
<tr>
<td></td>
<td>River Bend Harbor Marine</td>
<td>(904) 825-4666</td>
</tr>
<tr>
<td>Titusville</td>
<td>Kennedy Point Yacht Club &amp; Marina</td>
<td>(321) 383-0280</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(321) 269-0771 Fax</td>
</tr>
<tr>
<td></td>
<td>Westland Marina</td>
<td>(321) 267-1667</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(321) 267-0844 D/T Fax</td>
</tr>
</tbody>
</table>
5233 Maintenance Facilities

During a prolonged response two types of maintenance will almost certainly be required, vehicles, and outboard motors.

For Federal agencies, vehicle maintenance must be handled through GSA channels or by following the instructions of the rental car agency for rental vehicles. Non-federal agencies will continue to use their normal repair procedures. Numerous vehicle repair facilities are available throughout the area of responsibility.

The factory authorized service facilities for outboard motors located in our area of responsibility are:

<table>
<thead>
<tr>
<th>Outboard Motor Service Facilities</th>
<th>Evinrude &amp; Johnson (OMC)</th>
<th>Suzuki</th>
<th>Yamaha</th>
<th>Mercury</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ortega River Boatyard</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4451 Herschel Street</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jacksonville, FL</td>
<td>(904) 387-5538</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Becks Outboard Shop</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kaye Hardag</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1257 Broward Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jacksonville, FL</td>
<td>(904) 765-9910</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(904) 764-4957 Fax</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tomoka Marine</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>John Mott</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2751 Moody Blvd.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flagler Beach, FL</td>
<td>(386) 439-3838</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(386) 673-8932 24hr</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(386) 439-3705 Fax</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Camp Henry Marina</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Star Road</td>
<td></td>
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</tr>
<tr>
<td>Georgetown, FL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(386) 467-2282</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blue Water Boats</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doug Schimm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>730 Ridgewood</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Holly Hills, FL</td>
<td>(386) 255-7790</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(386) 239-0930 Fax (Not on water)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brevard Marine Service</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joanna Stone</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2200 West King Street</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocoa, FL</td>
<td>(321) 452-8250</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(321) 636-5222 Fax</td>
<td></td>
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<tr>
<td>Aloha Marine Inc.</td>
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<tr>
<td>1700 N. Nova Rd.</td>
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<tr>
<td>Holly Hills, FL</td>
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<tr>
<td><strong>Outboard Motor Service Facilities</strong></td>
<td><strong>Evinrude &amp; Johnson (OMC)</strong></td>
<td><strong>Suzuki</strong></td>
<td><strong>Yamaha</strong></td>
<td><strong>Mercury</strong></td>
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</tr>
<tr>
<td>(386) 255-2345 (386) 255- 3309 Fax (moved inland)</td>
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<tr>
<td>Westland Marine</td>
<td></td>
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</tr>
<tr>
<td>Greg Nelson</td>
<td></td>
<td></td>
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<tr>
<td>419 N. Washington Ave.</td>
<td></td>
<td></td>
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<tr>
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<tr>
<td>(321) 267-1667 (321) 267-0844 Fax</td>
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<tr>
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<td>1720 E. Cherry Street</td>
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<tr>
<td>Jessup, GA</td>
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<tr>
<td>(912) 427-9915</td>
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<tr>
<td>Ellis Marine</td>
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<td>Bobby Ellis</td>
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<tr>
<td>3687 Community Road</td>
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<tr>
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</tr>
<tr>
<td>(912) 264-4024 (912) 265-5689 Fax</td>
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<tr>
<td>Bass Pro Shop’s Outhouse Marine</td>
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<tr>
<td>Tim Soles (Manager)</td>
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<td>7762 Blanding Blvd.</td>
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<tr>
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<tr>
<td>(904) 777-1383 (904) 777-0104 Fax</td>
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<tr>
<td>First Coast Marine</td>
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<tr>
<td>2100 Florida Blvd.</td>
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<tr>
<td>Neptune Beach, FL</td>
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<tr>
<td>(904) 246-1614</td>
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<tr>
<td>Palatka Marine Inc.</td>
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<td>Palatka, FL</td>
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<tr>
<td>(386) 328-0100</td>
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<tr>
<td>Vero Marine Center</td>
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<tr>
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<tr>
<td>(321) 562-7922</td>
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<tr>
<td>Fordham Marine Service</td>
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<td>1336 University Blvd. North</td>
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<tr>
<td>Jacksonville, FL 32211</td>
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<tr>
<td>(904) 743-2140</td>
<td></td>
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<tr>
<td>Luhrs Corporation</td>
<td></td>
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<tr>
<td>255 Diesel Road</td>
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<tr>
<td>St. Augustine, FL</td>
<td></td>
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</tr>
<tr>
<td>(904) 829-0500 (904) 827-2156</td>
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<tr>
<td>Bridge Boat Work Marina</td>
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<tr>
<td>800 Moody Blvd.</td>
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<tr>
<td>Flagler Beach, FL</td>
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</tbody>
</table>
5234 Portable Restrooms

Portable toilets are available at the following locations:

(for the northern section)

<table>
<thead>
<tr>
<th>Location</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste Management, Jacksonville, FL</td>
<td>(904) 255-7500</td>
</tr>
<tr>
<td>Amason's, Jacksonville, FL</td>
<td>(904) 276-4829</td>
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(for the southern section)

<table>
<thead>
<tr>
<th>Location</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson Rentals, Inc., Daytona Beach, FL</td>
<td>(800)-553-2213</td>
</tr>
<tr>
<td>Godawa Septic Tank Service, Daytona Beach, FL</td>
<td>(386) 767-7721</td>
</tr>
</tbody>
</table>

5235 Boat_Ramps

The following is a list of public boat ramps in the Sector Jacksonville area that could be used for launching response equipment. * signify ideal boat ramps.

DUVAL COUNTY / ST. JOHNS RIVER

- Hood Landing (Julington Creek) Foot of Hood Landing Rd. (***)
- County Dock, Foot of County Dock Road, Mandarin
- Fishing Creek (Fishing Creek/Ortega River), 4555 Ortega Farms Rd.
- River walk, west end of River walk next to Harbormasters (***)
- Arlington Road, Foot of Arlington Road, West of University Blvd. (***)
- Lonnie Wurn, 4131 Ferber Road, off Ft. Caroline Rd. and Heath St.
- Mayport, Ocean Street, East of Ferry Slip on A1A

DUVAL COUNTY / INTRACOASTAL WATERWAY

- Sisters Creek, at Hechsher Drive across from Atlantic Marine
- Oak Harbor, Foot of Deaway Street
- Beach Blvd., next to the Florida Marine Patrol station
- Jim King Boat Ramp (***)
DUVAL COUNTY / ST. JOHNS TRIBUTARIES
- Big Pottsburgh Creek, Beach Blvd., south of bridge at Grove Park (Beach Blvd)
- Dinsmore, US 1 north at Dinsmore on Trout River (shallow - John boat entry only)
- Bert Maxwell, off Broward Road near I95 on Trout River
- Harbor View, off Soutel Drive, on the Ribault River (Well inland)
- Big Talbot State Park boat ramp

NASSAU COUNTY / INTRACOASTAL WATERWAY
- Fernandina City, Foot of Ash Street near Fernandina Harbor Marina
- Fort Clinch, at Fort Clinch State Park on A1A (***)
- Loftin Creek, Wayside Park A1A, between Fernandina Beach and Yulee (well inland)
- Wilson Neck Landing, Claxton Road, Cuno Creek / Nassau River
- Holly Point Subdivision, SR 207 Christopher Creek / Nassau River (very limited access/shallow)
- Buccaneer Trail, A1A north end of Nassau River Bridge

NASSAU COUNTY / ST. MARYS RIVER
- Tompkins Landing, SR 121 (well inland)
- Walker's Landing, SR 121A, Hampton Road (well inland)
- Tigers Creek Marina
- Egans Creek Marina

PUTNAM COUNTY / ST. JOHNS RIVER
- SR 209A, St. Johns Harbor subdivision, west bank
- East Palatka, off East River Road, east bank
- US 17, East Palatka, at end of Boat Ramp Road
- City Dock, downtown Palatka at City Marina (***)
- Brown's Landing, Foot of Lundy Road, west bank (***)
- SR 309, Shell Harbor Road, east bank
- Welaka, SR 309, Welaka
- Georgetown, SR 309 in Georgetown
- Fort Gates Ferry Landing, west bank

ST. JOHNS COUNTY / INTRACOASTAL WATERWAY
- Old Boating Club, A1A above Vilano Beach
- St. Johns County Park, A1A east of Vilano Beach bridge (***)
- Lighthouse Park, at St. Augustine Light, Davis Shores, A1A S. (***)
- Green Road, A1A South, Crescent Beach
- Butler Park, A1A South, Crescent Beach

ST. JOHNS COUNTY / ST. JOHNS RIVER
- Riverdale, secondary road 13A off SR 13
- McCullough Creek, SR 13 south of Riverdale

CLAY COUNTY / ST. JOHNS RIVER
- Old Shands Bridge, SR 16
- Lakeshore Drive, SR 220
- Williams Park, SR 209 off US 17 South, Green Cove Springs

BREVARD COUNTY / INTERCOASTAL WATERWAY
- McClarkly Park, West SR 520, Cocoa
- Fox Lake Park, 4400 fox Lake Road, Titusville
- Kelly Park, 2550 N. Banana River Drive, Merritt Island
- Kiwanis Island Park, 950 Kiwanis Road, Merritt Island
- Lee Wenner Park, Riveredge Drive and SR 520, Cocoa
- Manatee Hammock Park, 7272 South US 1, Titusville
- Marina Park, 451 Marina Road, Titusville
- McFarland Park, Coquina Drive and River Road, Cocoa

BREVARD COUNTY / PORT CANAVERAL
- Ports End Park, Mullet Drive, Port Canaveral

### 5236 Hotels/Berthing

Hotels/motels with restaurant facilities are located in the following cities:

<table>
<thead>
<tr>
<th>CITY</th>
<th>HOTEL/MOTEL</th>
<th>PHONE NO</th>
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</thead>
<tbody>
<tr>
<td>Atlantic Beach</td>
<td>Sea Turtle Inn</td>
<td>(904) 249-7402</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(904) 247-1517 Fax</td>
</tr>
<tr>
<td>Cocoa Beach</td>
<td>Hilton Inns</td>
<td>(321) 799-0003</td>
</tr>
<tr>
<td></td>
<td>GM Deborah Green</td>
<td>(321) 799-0344 Fax</td>
</tr>
<tr>
<td></td>
<td>Holiday Inn</td>
<td>(321) 783-2271</td>
</tr>
<tr>
<td></td>
<td>Howard Johnson Plaza</td>
<td>(321) 783-9222</td>
</tr>
<tr>
<td></td>
<td>GM Christy Galzerbono</td>
<td>(321) 799-3234 Fax</td>
</tr>
<tr>
<td>Daytona Beach</td>
<td>Plaza Resort</td>
<td>(386) 255-4515</td>
</tr>
<tr>
<td></td>
<td>GM Steve Dorsey</td>
<td>(386) 232-7989 Fax</td>
</tr>
<tr>
<td></td>
<td>Double Stay Inn</td>
<td>(386) 255-5432</td>
</tr>
<tr>
<td></td>
<td>GM Mr. William Tarmenn</td>
<td>(386) 254-0885 Fax</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.doublestay.us">www.doublestay.us</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hilton Garden Inn</td>
<td>(386) 944-4000</td>
</tr>
<tr>
<td></td>
<td>GM Richard Pazmino</td>
<td>(386) 944-4001 Fax</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:Richard_Pazmino@hilton.com">Richard_Pazmino@hilton.com</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Holiday Express Inn (I-95 &amp; Speedway Blvd)</td>
<td>(386) 258-6333</td>
</tr>
<tr>
<td></td>
<td>GM John Bristol</td>
<td>(386) 254-3611 Fax</td>
</tr>
<tr>
<td></td>
<td>Email <a href="mailto:Jbristol@daytonaholidayinn.com">Jbristol@daytonaholidayinn.com</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hilton Inn</td>
<td>(386) 767-7350</td>
</tr>
<tr>
<td></td>
<td>GM Stanley Martin</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bermuda House</td>
<td>(386) 672-1440</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(386) 677-8811 Fax</td>
</tr>
<tr>
<td></td>
<td>LaQuinta Inn</td>
<td>(386) 255-7412</td>
</tr>
<tr>
<td></td>
<td>GM Clint Friddel</td>
<td>(386) 255-5350 Fax</td>
</tr>
<tr>
<td></td>
<td>Email <a href="mailto:LQ0904GM@LaQuinta.com">LQ0904GM@LaQuinta.com</a></td>
<td></td>
</tr>
<tr>
<td>Fernandina Beach</td>
<td>Best Western</td>
<td>(904) 277-2300</td>
</tr>
<tr>
<td></td>
<td>GM Ruby Ovellette</td>
<td>(904) 277-1839 Fax</td>
</tr>
<tr>
<td>Location</td>
<td>Hotel Name</td>
<td>Contact Person</td>
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<tr>
<td>----------------</td>
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</tr>
<tr>
<td>Jacksonville</td>
<td>Radisson</td>
<td>Bob Meyer</td>
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<tr>
<td></td>
<td>Bob Meyer Director</td>
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<tr>
<td></td>
<td>Holiday Inn Surfside</td>
<td>GM Jeff TruHler</td>
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<tr>
<td></td>
<td>South Point Inn</td>
<td>GM Stewart</td>
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<td></td>
<td>Marriott Hotels</td>
<td>GM Kevin</td>
</tr>
<tr>
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<td>Shea</td>
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<td></td>
<td><a href="mailto:Kevin_Shea@marriott.co">Kevin_Shea@marriott.co</a></td>
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<tr>
<td></td>
<td>OmnI Jacksonville Hotel</td>
<td>GM Bob White</td>
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<td></td>
<td>Quality Inn and Suite</td>
<td>GM Mark</td>
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<tr>
<td></td>
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<td>Tomlinson</td>
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<tr>
<td>Melbourne</td>
<td>Howard Johnson</td>
<td>GM Agnes</td>
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<td>Worboy</td>
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<td>Merritt Island</td>
<td>Clarion Inn</td>
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<td>Ali</td>
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<tr>
<td>St. Augustine</td>
<td>Holiday Inn</td>
<td>GM Mark</td>
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<td><a href="mailto:HolidayAug@aol.com">HolidayAug@aol.com</a></td>
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<tr>
<td></td>
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<td>Howards</td>
<td>GM Don</td>
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<td>Craven</td>
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<tr>
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<td>GM Jim Byles</td>
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<td>Alhambra Inn Historic</td>
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<tr>
<td>Titusville</td>
<td>Highway Inn</td>
<td>GM Jim Byles</td>
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<tr>
<td></td>
<td>Best Western Space Shuttle</td>
<td>GM Jim</td>
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<td>Inn</td>
<td>Burns</td>
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<td>GM Jim</td>
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<td>Burns</td>
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</tbody>
</table>

**5240 Transportation**

Each organization responding to a pollution incident will be normally be responsible for its own transportation needs.
Additional vehicles required to meet the increased ground transportation will normally be rented unless it is clear that the response will last in excess of 1 month. For long spills obtaining additional vehicles through lease agreements or through GSA for federal vehicles may be appropriate. Whether individuals or agencies rent the necessary vehicle is at the discretion of the agency. Additional vehicles for Coast Guard use will be rented by persons on travel orders and the cost included in their travel claim.

The contractor should provide transportation of contractor equipment and personnel by boat to conduct cleanup operations. Efficiency will dictate transportation to or from remote locations to evaluate an incident. Monitoring organization personnel may be transported by contractor boats or vice versa.

The following is a partial list of truck and car rental companies in the area covered by this plan:

<table>
<thead>
<tr>
<th>City</th>
<th>Company</th>
<th>Phone Number</th>
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</thead>
<tbody>
<tr>
<td>Jacksonville</td>
<td>Enterprise Rent-A-Car</td>
<td>(904) 396-0339</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(904) 396-0534 Fax</td>
</tr>
<tr>
<td></td>
<td>Ryder Trucks</td>
<td>(904) 781-1661</td>
</tr>
<tr>
<td></td>
<td>Budget Car and Truck Rental</td>
<td>(800) 527-7000</td>
</tr>
<tr>
<td></td>
<td>Dollar Rent-A-Car</td>
<td>(904) 741-4444</td>
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<tr>
<td></td>
<td></td>
<td>(904) 741-6008 Fax</td>
</tr>
<tr>
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<td>Thrifty Car Rental</td>
<td>(904) 741-1004</td>
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<tr>
<td></td>
<td></td>
<td>(904) 741-0022 Fax</td>
</tr>
<tr>
<td></td>
<td>Avis</td>
<td>(904) 741-2327</td>
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<tr>
<td></td>
<td></td>
<td>(904) 741-4494 Fax</td>
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<tr>
<td></td>
<td>Hertz Rent-A-Car</td>
<td>(904) 741-2151</td>
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<td></td>
<td>(904) 741-2150 Fax</td>
</tr>
<tr>
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<td>Enterprise Rent-A-Car</td>
<td>(904) 829-1662</td>
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<td></td>
<td></td>
<td>(904) 824-4762 Fax</td>
</tr>
<tr>
<td>Titusville</td>
<td>Budget Car and Truck Rental</td>
<td>(321) 268-5415</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(321) 383-4187 Fax</td>
</tr>
<tr>
<td>Cape Canaveral</td>
<td>Thrifty Car Rental</td>
<td>(321) 783-2600</td>
</tr>
<tr>
<td></td>
<td>Budget Trucks</td>
<td>(321) 783-6694</td>
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<tr>
<td></td>
<td></td>
<td>(321) 632-4070</td>
</tr>
<tr>
<td>Cocoa</td>
<td>Hertz Penske Truck Rental</td>
<td>(321) 639-2070</td>
</tr>
<tr>
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<td>(321) 636-5405</td>
</tr>
<tr>
<td>Merritt Island</td>
<td>Enterprise Rent-A-Car</td>
<td>(321) 453-8710</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(321) 455-6478</td>
</tr>
<tr>
<td>Melbourne</td>
<td>Hertz Penske Truck Rental</td>
<td>(321) 242-1565</td>
</tr>
</tbody>
</table>

**5250 Command Centers (Fixed/Portable)**

The requirements for, and location of, a command center are highly spill dependent. For major spills in the Jacksonville area, the City of Jacksonville Emergency Operations Center provides an ideal location. This facility is used in times of emergency, particularly hurricanes. It is fully telephone and radio equipped. The building is large enough to accommodate all necessary parties including the media. The layout is such that the media can be kept away from actual operations.
The Coast Guard also has a mobile command post. This facility is radio equipped. In a major event this trailer would be very effective in directing or monitoring activities on scene. For smaller events this trailer would be effective as a command post.

The Navy submarine base at Kings Bay also has a mobile command post that can be made available to the Coast Guard in a major event. This facility is radio equipped and would be supplied with Navy personnel familiar with its equipment. For more info, contact the base Emergency Management office at 912-573-4840.

The Army Corps of Engineers located in Jacksonville has a mobile command center that may also be available in an emergency. This facility is radio equipped and can support a portable computer system. For more info, contact the ACOE at (904) 232-2241.

In major events, contractors will certainly be involved. Major contractors generally have mobile command posts. In keeping with current policy of cooperation between monitoring organizations and contractors, these contractor assets can prove to be very effective in enhancing command and control.

The following possible command post locations, hotels with adequate conference room facilities, have been identified:

**JACKSONVILLE**

JAXPORT Security Operations Center (SOC) **Northern AOR ICP**
9530 New Berlin Court
Jacksonville, FL 32226
(904) 357-3360

Inter-Agency Maritime Operations Center (IMOC) **Southern AOR ICP**
Canaveral Port Authority
445 Challenger Road, Suite 301
Cape Canaveral, FL 32920
(321) 783-7831

**5260 Support Suppliers**

Refer to annex 9200 Personnel Services for a list of suppliers: **9200 Personnel Services – Cleanup Companies**

**5270 Ground Support Unit**

Primarily responsible to support “out of service” resources, the coordination and transportation of personnel, supplies, food and equipment. In addition to the maintenance and repair of vehicles and other ground support equipment, this division would implement the traffic plan for the incident.

**5280 Vessel Support Unit**

Responsible for implementing the vessel routing plan for the incident and coordinating transportation on the water and between shore resources. This may include arranging fueling, maintenance and repair of vessels on a case-by-case basis.
5290 Supply Unit

Responsible for requesting additional personnel based on Operations and Planning needs. The Supply Unit also orders equipment and supplies; receives and stores all supplies for the incident; maintains an inventory of supplies; and services all equipment. Additionally, the Supply Unit is responsible for layout and activation of incident facilities. They provide sleeping and sanitation facilities for incident personnel and manage the various bases, staging areas, and camps.

5300 Logistics Service Branch Functions, Resources and Capabilities

Responsible for the management of all service activities at the incident. Refer to Appendices 9200 Personnel and Services Directory, 9340 Communication Plan and 9720.200 ICS Form Database for additional information.

5310 Medical Unit

Responsible for the development of the Medical Emergency Plan, obtaining medical aid and transportation for injured and all incident personnel, and preparations of reports and records. Refer to Appendices 9110 Emergency Notification List, 9240.200 EMERGENCY MEDICAL/HOSPITALS, and 9720.200 ICS Form Database for additional information.

(1) Provide and coordinate emergency and routine medical services to response personnel.

(2) Manage dedicated Medical Unit resources and coordinate additional medical services.

(3) Identify resources and logistics support needs.

(4) Report the status of Medical Unit Services.

5320 Food Unit

Responsible for determining feeding requirements at all incident facilities; menu planning; determining cooking facilities required; food preparation; serving; providing potable water; and the general maintenance of food service areas. To obtain information on food distributors, contact the State EOC in Tallahassee, FL. The State EOC will contact the appropriate disaster relief effort organization. Refer to Appendices 9110 Emergency Notification List, 9200 Personnel and Services Directory, and 9720.200 ICS Form Database for additional information.

(a) Provide and coordinate meals and subsistence support to response personnel.

(b) Plan, document, and account for the number and type of meals required.

(c) Establish kitchens, galleys, canteens, and other food services support locations.

(d) Establish and manage sources of supply to support meal and subsistence requirements.

(e) Provide potable drinking water, coolers, and other beverages required to support response operations.

(f) Identify additional resources and logistics support needs.

(g) Report on the status of food and subsistence services.
Some places that have been used in the past include:

**J. & M. CATERERS**  
593 Sun Garden Road  
Green Cove Springs, FL  
(800) 427-6718

**BLUE BOY SANDWICH SHOP**  
5535 Ft. Caroline Road  
Jacksonville, FL  
(904) 743-3515

**BONO'S PIT BAR-B-Q**  
10645 Phillips Hwy  
Jacksonville, FL  
(904) 886-2801

**WOODY'S BAR-B-Q AND CATERING**  
6960 Bonneval Road  
Jacksonville, FL  
(904) 269-6948

**THE BEST BARBECUE COMPANY**  
2951 Hessey Avenue  
Palm Bay, FL  
(407) 725-2801

**FAT BOY'S BAR-B-Q**  
4280 South Washington Avenue  
Titusville, FL 32780  
(321) 267-3468

**ISLAND BAR-B-Q**  
1050 North Courtenay Parkway  
Merritt Island, FL  
(321) 452-4432

### 5330 Communications Unit

Responsible for developing plans for the effective use of incident communication equipment and facilities; installing and testing of communications equipment; supervision of the Incident Communication Center; distribution of communication equipment to incident personnel; and the maintenance and repair of communication equipment. Refer to Appendices [9200 Personnel and Services Directory](#), [9340 Communication Plan](#) and [9720.200 ICS Form Database](#) for additional information.

1. Develop, Implement, and coordinate the Incident Communications Plan.
2. Deliver, issue, track, maintain, support and recover communications resources, telephones, radios, base stations, repeaters, and other communications facilities.
3. Identify additional communications resources or logistics needs.
(4) Report on the status of communications capabilities and operations.

For events occurring in the Jacksonville area, little communications difficulty can be expected except in the area of radio communications. In the Jacksonville area all organizations are either at or near their office spaces so fax and hardwired telephones are readily available. Cellular phones are also within their home exchange, which will improve reception and ease use. The primary difficulties with radio communications are the limited range of Sector Jacksonville's radio and incapability when public emergency resources such as fire departments are involved. These organizations operate on the 800 MHz band as opposed to the marine band. The Coast Guard has no 800 MHz capability.

Communications outside the Jacksonville area will prove to be more difficult. The Coast Guard and many commercial response organizations have mobile command posts from which communications may be conducted. In a prolonged response obtaining hard wire telephone capability to mobile command posts should be a high priority. Radio communications to public emergency response organizations will be more difficult outside of the Jacksonville area due to the reduced availability of equipment. The sharing of equipment between organizations is the best solution for this problem.

<table>
<thead>
<tr>
<th>For service and purchase of 800 MHz two-way radio systems and other types of communications systems</th>
<th>Select Communications, 1511 Cesery Blvd., Jacksonville, FL (904) 641-5055</th>
</tr>
</thead>
<tbody>
<tr>
<td>For emergency telephone service</td>
<td>Call TT Dept of ESD Mayport (904) 270-0724</td>
</tr>
<tr>
<td>For additional mobile phone purchase and service</td>
<td>Nextel Communications 8570 Phillips Hwy, Suite 108 Jacksonville, FL 32256 (904) 732-4877 1(800)3907545 Fax: (904) 732-4879 <a href="mailto:Holly.Davis@nexitel.com">Holly.Davis@nexitel.com</a> Cell: (904) 591-6982</td>
</tr>
<tr>
<td>VHF-FM portable radios Mobile Command Post (Staged at Gulf Strike Team, Mobile, AL)</td>
<td>BellSouth Mobility 8171 Baymeadows Way West, Ste 20 Jacksonville, FL 32256 Marilkyn Monroe Buffington Voice/fax: (904) 210-0059 Cell: (904) 868-0309</td>
</tr>
<tr>
<td>Communications Trailor (40 Foot) Communications Vans (2 @ 20 Foot)</td>
<td>National Strike Force</td>
</tr>
</tbody>
</table>

**5400 Places of Refuge**

[Reserved for future Area Committee development].
Info from International Maritime Organization (IMO) webpage at http://www.imo.org/home.asp

In November 2003, the IMO Assembly adopted two resolutions addressing the issue of places of refuge for ships in distress - an important step in assisting those involved in incidents that may lead to the need for a place of refuge to make the right decisions at the right time.

Resolution A.949(23) Guidelines on places of refuge for ships in need of assistance are intended for use when a ship is in need of assistance but the safety of life is not involved. Where the safety of life is involved, the provisions of the SAR Convention should continue to be followed.

The guidelines recognize that, when a ship has suffered an incident, the best way of preventing damage or pollution from its progressive deterioration is to transfer its cargo and bunkers, and to repair the casualty. Such an operation is best carried out in a place of refuge. However, to bring such a ship into a place of refuge near a coast may endanger the coastal State, both economically and from the environmental point of view, and local authorities and populations may strongly object to the operation.

Therefore, granting access to a place of refuge could involve a political decision which can only be taken on a case-by-case basis. In so doing, consideration would need to be given to balancing the interests of the affected ship with those of the environment.

A second resolution, A.950(23) Maritime Assistance Services (MAS), recommends that all coastal States should establish a maritime assistance service (MAS). The principal purposes would be to receive the various reports, consultations and notifications required in a number of IMO instruments; monitoring a ship's situation if such a report indicates that an incident may give rise to a situation whereby the ship may be in need of assistance; serving as the point of contact if the ship's situation is not a distress situation but nevertheless requires exchanges of information between the ship and the coastal State, and for serving as the point of contact between those involved in a marine salvage operation undertaken by private facilities if the coastal State considers that it should monitor all phases of the operation.

5500 Reserved
[Reserved for future Area Committee Development]

5600 Reserved
[Reserved for future Area Committee Development]

5700 Reserved
[Reserved for future Area Committee Development]

5800 Reserved
[Reserved for future Area Committee Development]
5900 Reserved for Area/District
Northeast and Eastern Central Florida Area Contingency Plan

Annex 6000: Finance and Administration
6000 Finance and Administration

OPA 90 has improved the procedures and availability of funding for all agencies (federal, state, and local) involved in oil spill response. Funding of oil spills is accomplished through the Oil Spill Liability Trust Fund (OSLTF). This fund is divided into two sections. The part of the fund of interest to this plan is the Emergency Fund. It consists of $50M appropriated annually by Congress. This section of the fund may be used for response activities and to initiate Natural Resources Damage Assessments.

The most significant improvement in funding brought about by OPA 90 is the ability of the Federal OSC to “partially federalize” a response. In the event of a significant spill prior to OPA 90, the FOSC could not pay for any resources out of the fund without taking over the entire spill from the responsible party. FOSCs were justifiably reluctant to do this in instances where the responsible party was responding well. Under OPA 90 the FOSC may allow the responsible party to continue all response efforts within their capability. The FOSC may simultaneously secure and direct additional response efforts using contractors or government personnel and equipment. Local examples of this would be having the responsible party hire commercial contractors and the FOSC directing Coast Guard and Other Governmental Agency (OGA) resources. OGA and Coast Guard costs would be reimbursed through the fund and ultimately recovered from the responsible party.

Refer to the Incident Management Handbook (IMH) for the Incident Command System and the Finance and Resource Management Field Guide (FFARM) both prepared by USCG, Office of Response (G-MOR-3) for specific information on financial duties, resource management and finance/administration section positions. Refer to Appendix 9720.100 Incident Management Handbook for the IMH, Appendix 9720 Finance and Resource Management Field Guide for the FFARM, and 9720.200 ICS Forms Database for ICS forms. This section will only provide a brief overview and information specific to the maritime areas of Northeast and Eastern Central Florida.

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6010 Key Unified Command Financial Decisions

As discussed in Annex 1000 of this plan, the National Response System places responsibilities for conducting clean up on the responsible party as a matter of policy. In practice, however, the involvement of the state, local, and federal agencies in various phases of the response are significantly more involved. The National Pollution Fund Center (NPFC) refers to the National Contingency Plan’s four phases of a response:

Phase I: Discovery and Notification;
Phase II: Preliminary Assessment and Initiation of Action;
Phase III: Containment, Countermeasures, Cleanup and Disposal; and
Phase IV: Documentation and Cost Recovery.

Certain federal, state, and local government costs incurred during Phase II Assessment may be chargeable against the OSLTF, but may not all be billed against the Responsible Party during cost recovery Phase IV.

Further, Unified Command members come to the response with objectives that overlap on the subject of pollution removal but often extend beyond this matter. The Responsible Party Incident Commander (RPIC) for instance will normally have key objectives of the response directed toward repairing damage and returning a vessel or facility to operation. In the case of an abandoned vessel, the marina or dry-dock owner will normally have objectives of having the derelict vessel removed/eliminated after the pollutant is removed. While these may at first appear to be post-response objectives, these decisions and matters deeply influence the response itself. For example, non-response derelict-vessel disposal strategies will influence the response decision on how clean the derelict hull must be rendered in order to assure it poses no additional threat to the environment.

Various financial mechanisms available to the members of the Unified Command each come with stringent limitations and intended employment. For this reason, one of the most important decisions the Unified Command must come to during the first Unified Command meeting is an agreement about how financial responsibilities will be shared. The remainder of this section details some considerations in making these decisions.
Limitations in the Employment of the OSLTF

1. **Missions Other Than Pollution Removal.** The federal, state, and local government response to an incident will typically include search and rescue, law enforcement, safety of navigation (including placing Aids to Navigation and salvage of sunken vessels), port safety, and maritime homeland security. However, only those actions whose primary purpose is removal (i.e., the containment or removal of oil pollution or necessary to minimize or mitigate oil pollution damage to the public health, welfare, or environment) and which are consistent with the National Contingency Plan may be paid or reimbursed by the OSLTF. **The first key financial decision of the Unified Command is how other mission objectives will be funded, followed through by funding instructions to the Finance/Administration Section.**

2. **Employment of State and Local OGAs Pollution Response Resources.** From the outset of any response, the Federal On-Scene Coordinator (FOSC) should establish whether state or local resources are necessary for removal actions. The Unified Command, based on this decision, must carefully define the scope of the state or local OGA’s expected actions and allow the FOSC’s staff to evaluate potential claims against the OSLTF. When a state or local OGA responds under this type of agreement, the Coast Guard representatives in the Finance/Administration section must execute a Pollution Removal Funding Authorization (PRFA) with the OGA’s financial representative. The PRFA assures the OGA will be reimbursed for specific work performed at the FOSC’s request. **The second key financial decision of the Unified Command is which actions will be undertaken by state and local OGAs at the FOSC’s request (and paid for using a PRFA), and which will be undertaken by these agencies as independent members of the Unified Command (using funding mechanisms other than the OSLTF).**

3. **Federal Vessels and Installations.** The National Contingency Plan places responsibility for spills from federal vessels and installations on the owning federal agency, including use of its own funding. However, the Federal On-Scene Coordinator can use the OSLTF as a last resort to clean up or prevent oil discharges. When the responsible federal agency is capable of funding the clean up, the FOSC should attempt to establish a Military Interdepartmental Purchase Request (MIPR) or equivalent to reimburse the use of FOSC and OGA pollution response equipment and personnel time. **The third key financial decision of the Unified Command is to establish mechanisms (such as a MIPR) to finance FOSC and OGA response activities when the spill comes from a federal vessel or installation, and to determine when the last resort OSLTF access is needed.**

4. **Damage Claims and Removal Activities.** Claims of damage may be submitted for reimbursement (when approved) from the OSLTF. Often, such damage claims include the costs of restoring a vessel, facility, etc., to operation (as in the case of a third-party vessel which is oil contaminated as a result of the spill). Actual decontamination of a vessel, facility, or other installation may also reasonably be a removal action (i.e., to prevent further human health, economic or environmental damage), and the question of overlaps between damage claims and removal actions arises. Rather than simply a question of funding mechanisms, these questions impinge directly on which clean-up strategies and objectives the Unified Command will execute, particularly during the later stages of the response. **The fourth key financial decision of the Unified Command is to establish how removal strategies and actions will impact damage claims and establish a single, uniform policy for handling these overlaps, usually in consultation with the National Pollution Fund Center’s case manager.**

5. **Replenishment of Response Equipment to Inventory.** The OSLTF may be used to restore pollution response equipment to inventory in the condition it was in before the response. Items used up in the response (consumables) or damaged beyond economical repair may be replaced. **The fifth key financial decision the Unified Command faces is how equipment will be evaluated at the start of the response, and how the condition will be assessed during demobilization for replenishment/repair purposes, along with the financial arrangements for accomplishing the replenishment.** Again, this replenishment decision can extend only to response equipment used for oil pollution removal, not toward other objectives.

6. **Discharges causing Underground Contamination.** Discharges from oil tanks and related facilities often cause extensive subsurface or groundwater contamination. When underground contamination has migrated
so as to cause an actual surface discharge or substantial threat of a discharge into navigable waters, the OSLTF may be used for removal. When these imminent threat or actual discharge conditions are not met, the incident is considered a hazardous materials incident ashore under municipal, county, and state hazardous material discharge rules. The sixth key financial decision is how various aspects of a response causing underground contamination will be treated (i.e., threat to the navigable waters or not), and consequently how the response will be funded.

7. Preferred or prioritized Sources of Supply. Many if not all of the agencies and organizations responding to a spill will have pre-arranged sources of supply and service, and all will have legal and procedural limitations on procurements. While the emergency elements of the response may expedite procurements, it does not eliminate the rules governing procurement. Accordingly, the seventh key financial decision is to sort out procurement and contract responsibilities between the agencies/organizations in the Unified Command based upon preferences and prioritization of sources of supply.

8. Limits of Liability. In a large response, there is significant possibility that the Responsible Party’s limits of financial responsibility will be exceeded, opening the possibility that the response may transition entirely to FOSC / SOSC control. The eighth key financial decision is to agree upon an appropriate means of tracking the Responsible Party’s financial commitment, an approach to these limits, and process for deciding when and how any transition in the Unified Command will occur.

6100 Finance / Administration Section

The Finance/Administration Section is responsible for all incident costs and financial considerations. This includes the Time Unit, Procurement Unit, Compensation/Claims Unit and Cost Unit. The IC will determine the need for a Finance/Administration Section, and designate an individual to perform that role. The Finance/Administration Section is generally set up for any incident that may require on-site financial management. In general, the decision to establish a finance / administration section will depend on two factors: 1) the financial complexity of the response; and 2) the number of tactical assets deployed (usually measured by the number of tactical divisions/groups established or likely to be established).

If no Finance Section is established, the individual members of the Unified Command will perform finance functions for their agency/organization component. Refer to 9200 Personnel and Services Directory, 9720.100 Incident Management Handbook for the IMH and 9720.200 ICS Forms Database for necessary information.

6110 Finance/Administration Section Chief

The Finance and Administration Section Chief is responsible for all financial and cost analysis aspects of the incident and for supervising members of this Section. Refer to 9200 Personnel and Services Directory, 9720.100 Incident Management Handbook for the IMH, 9720 Finance and Resource Management Field Guide for the FFARM, and 9720.200 ICS Forms Database for necessary information.

(1) Implement and manage the Finance Section branches and units needed to proactively accomplish Finance Section actions.

(2) Provide, manage, coordinate, document, and account for access to response funding sources, including the Oil Spill Liability Trust Fund (OSLTF),
Natural Resources Damage Assessment Fund (NRDA), State funding sources, and other sources of response funding.

(3) Coordinate and ensure the proper completion of response cost accounting documentation
(4) Coordinate and manage response ceilings, budgets and cost estimates.
(5) Provide financial support for contracting services, purchases, and payments.
(6) Serve as the primary contact to the National Pollution Fund Center (NPFC) and the NPFC Case Officer to coordinate response cost recovery actions.
(7) Identify additional financial services resources or logistics support needed.
(8) Report on the status of Finance Section services.

This Section is organized as follows:
   6110 Modular Development of the Finance / Administration Section
   6120 Degree of Integration
   6130 Recommended Shift Rotation / Hours of Work

6120 Modular Development of the Finance / Administration Section

Larger incidents typically require a Finance/Administration Section to monitor costs. When the incident clearly will require involved financial arrangements, particularly when damage claims will likely be involved, the Unified Command is well advised to establish a Finance / Administration Section within the first operational period so that out-of-area financial experts can mobilize to staff the section.

Smaller incidents may also require certain Finance/Administration functions. For example, the IC may establish one or more units of the Finance/Administration Section for such things as procuring special equipment, contracting with a vendor, or for making cost estimates of alternative strategies.

It is critical to note that even where no Finance / Administration Section or units are established, all of the Sections FUNCTIONS are performed by other personnel at the site (e.g., during a small response, all Section functions will typically be performed by the Federal On-Scene Coordinator’s Representative at the same time that he/she is overseeing the clean-up operation, future operational period planning, response equipment and personnel logistics, liaison functions, and command objectives function. In any but the smallest of responses, the subject-matter span of control will rapidly be exceeded.

A typical modular progression for a Finance / Administration Section during a response includes:

**Initial Response Organization:** The initial response to an oil spill is typically investigatory and tactical; no dedicated finance / administration section personnel will deploy. Finance / Administration functions will be performed as needed by the initial responders, but these functions typically do not arise immediately.

**Reinforced Response Organization:** The reinforced response to an oil spill also typically does not include dedicated finance / administration units; the majority of responses play out entirely at this level with the reinforcing response assets handling the response within the first operational period. Indications from the scene that the incident is escalating will typically require the deployment of dedicated Section personnel.

**Multi-Division/Group Response Organization:** A multi-division response organization indicates that the incident is sufficiently large and complex as to require a finance / administration section on-scene. Because this level of response typically involves the sustainment of reinforced response personnel and equipment on-scene (rather than the mobilization of large number of extra resources), the multi-division / group organization typically requires a procurement unit and a time unit.
Multi-Branch Response Organization: A multi-branch organization clearly indicates the need for the entire Finance / Administration Section, with Time, Procurement, Claims & Compensation, and Costs Units.

See IMH Pages 15-8 through 15-11.

6130 Degree of Integration

In general, sections are integrated under a unified command to varying degrees depending upon the nature of the work and restrictions on standard operating procedure. The Planning Section, for instance, is highly integrated with “agency stovepipes” completely eliminated. At the other end of the spectrum, the Finance / Administration Section deals with employees, equipment, procurements, and contracts completely bound by differing agency policy and legal requirements. In most instances these differing agency requirements cannot easily be resolved, and the Section normally operates almost as a grouping of agency “stove-pipes” within each Unit, integrated into a coherent whole by the Unit Leaders and Section Chief.

The decision of the Unified Command with regard to the assignment of personnel to each section should be made based upon the level of involvement an agency has in procurement, cost documentation, etc., and the degree to which agency financial and administrative Standard Operating Procedure differ. Where the Coast Guard Captain of the Port is the FOSC, for instance, all Coast Guard operational forces and federal procurements will occur within the military Coast Guard framework (including fatigue standards, cost documentation, federal contract processes, etc.). These procedures differ significantly from a civilian corporate or local governmental agency’s procedures, but do not differ significantly from other military and federal agencies (such as the U.S. Navy, Marine Corps, or National Aeronautical and Space Administration). Assuming they are making significant procurement, time and equipment contributions, local government and civilian corporate organizations would likely need representation within the Finance and Administration Section (loose integration), but the federal agencies might fully integrate by delegating their financial management to the Coast Guard representatives in the Section.

6140 Recommend Section Shifts / Hours of Work

[RESERVED for development by the Area Committee]

6200 OSLTF and CERCLA Fund Access

This section discusses the specific procedures for accessing the OSLTF and CERCLA funds. While this information may at first appear to be directed toward the procurement section and procurement functions, in fact OSLTF and CERCLA Fund issues are the most important driver for the entire Finance / Administration Section. Accordingly, all Section personnel must be familiar with Fund Access, regardless the level of or federal participation in the response. The section is organized as follows:

6210 FOSC Access
6220 State Access
6230 Federal Resource Trustee Access
6240 Stafford Act Funding

6210 FOSC Access

Should it become necessary, the FOSC may access the OSLTF or CERCLA funds by obtaining a Federal Project Number (FPN) or CERCLA Project Number (CPN) and ceiling from the Coast Guard’s CANAPS funding system. CANAPs will automatically confirm the issuance of the FPN or CPN by message.

The OSLTF applies to funding responses only when the following two conditions are both met:
(1) There is a discharge of oil (as defined in 33 USC Section 2701(23)), or a substantial threat of a discharge of oil:
   a. Into the navigable waters;
   b. On the adjoining shorelines;
   c. Into the waters of the exclusive economic zone; or
   d. That may affect natural resources under exclusive management authority of the United States.

(2) There are further actions necessary to ensure effective and immediate removal, mitigation or prevention of the substantial threat.

The OSLTF has $50 Million in the Emergency Fund sub-fund available for funding emergency removal of oil, and a maximum of $500 Million per case to remediate natural resource damages. A maximum of $1 Billion is available per case to pay for costs and damages associated with an oil spill.

The CERCLA funding for responses generally applies when the following three conditions are all met:

(1) A hazardous substance (not oil under 33 USC 2701(33)) has been released, or there is substantial probability that it will be released;

(2) The release (or probable release) presents an imminent and substantial threat to the public health or welfare; and

(3) The Responsible Party (RP) is failing to take appropriate actions or it is necessary to monitor the actions of the RP to assure they are taking appropriate actions.

The CERCLA removal funding is limited to no more than $2 Million dollars or 12 months in duration, though the Environmental Protection Agency may grant waivers to this requirement. The FOSC can obligate no more than $250,000 per incident without an approved Action Memorandum. There is no CERCLA funding for compensation payments to claimants damaged by hazardous substances.

Should a FPN or CPN that has been obtained prove unnecessary (no funds expended), the OSC must inform D7(m) of this fact so they can deactivate the FPN.

During a spill the Coast Guard will monitor the activities of all contractors hired by the FOSC as well as document its own costs. Other agencies will document their costs on the appropriate forms. At the end of the response all documentation will be submitted to the OSC for verification and forwarding to the NPFC.

**6220 State Access**

The Governor of Florida has designated a representative for state access to the Fund. The Governor’s letter designates the Chief, Office of Coastal Protection to make request pursuant to Section 133.25 of OPA 90.

State access to OSLTF and CERCLA funds provides an avenue for states to receive Federal funds for immediate removal costs resulting from their response to actual or threatened discharges of oil. State access does not supersede or preclude the use of other existing Federal payment regimes. The State should not seek and will not receive payments for the same costs from more than one payment regime.

States may access funds via one of three methods:

1. File a claim with the NPFC within 6 years of the cleanup.
2. Ask the FOSC to obtain a FPN/CPN and a ceiling amount for the State. The State will work directly with the NPFC to document costs.
3. Have the FOSC obtain a FPN/CPN and then issue a Pollution Removal Funding Authorization (PFRA) to the State with a ceiling and time limit. The FOSC will then review all documentation prior to submission to the NPFC.

6230 Trustee Access

Administrative Trustees are organizations with responsibilities for specific areas or natural resources such as the Department of the Interior. OPA 90 authorizes these organizations access to the fund through one administrative trustee known as the Lead Administrative Trustee (which must be a federal agency.) The designation of Lead Administrative Trustee is made for each spill based on the involvement of each organization. Administrative trustee access to the emergency fund would most likely be limited to beginning the damage assessment process.

The Lead Administrative Trustee may request funding directly from the NPFC case officer for the purpose of initiating damage assessments. The NPFC case officer will inform the FOSC that funds have been requested by the Lead Administrative Trustee.

6240 Stafford Act Funding

Under the Stafford Act, when there is a Presidential declaration of an major disaster or emergency, the Coast Guard FOSC may receive direct tasking in the form of a Mission Assignment – a work order issued by the Federal Emergency Management Agency (or other designated agency) directing the recipient agency to complete a specified task. Emergency Support Function 10 (ESF-10) – Hazardous Materials Response Annex of the Federal Response Plan – includes both Oil and Hazardous Materials response activities.

In the execution of a mission assignment, the FOSC will use existing funds, resources, and contracts for goods and services to complete the task. The FOSC will then review the actual expenses against the estimated costs and make payments to OGA and private vendors for each cost.

For oil spills and hazardous materials releases, the FOSC will receive a Request for Federal Assistance from FEMA or the ESF lead agency, including a cost ceiling, and will then proceed to respond as normal using the OSLTF and CERCLA funds, including the Request for Federal Assistance form in the cost documentation. It is important to recognize that Stafford Act funds, like OSLTF and CERCLA funds, may only be applied to response costs directly related to the tasking, and the Stafford Act ceiling must be managed carefully just as other fund ceilings are managed.

Stafford Act Funding References
A. Commander, Coast Guard Atlantic Area Message 282118Z MAY 03
B. Federal Response Plan, dt Simpson 99
D. DOT Order 1100.29G Regional Emergency Transportation Coordinators or Representatives
E. National OIL AND HAZARDOUS SUBSTANCE SPILL CONTINGENCY PLAN (NCP)
F. FEMA/EPA MEMORANDUM OF AGREEMENT: POLICY GUIDANCE ON ESF-10 MISSION ASSIGNMENTS
G. COMDTINST 16451.1 DISASTER RELATED POLLUTION RESPONSE ACTIVITIES UNDER THE FEDERAL RESPONSE PLAN AND COST REIMBURSEMENT FROM THE STAFFORD ACT

6241 Stafford Act Roles and Responsibilities

This section serves to amplify/clarify the discussion in reference a of ESF-10 (hazmat) roles under the FRP (reference b) by establishing staffing requirements, including roles, responsibilities, and reporting requirements for
USCG ESF-10 Watchstanders, response operations relating to ESF-10, and the ESF-10 funding mechanisms by which USCG units may seek reimbursement for activities sanctioned under specified FEMA-issued mission assignments.

Reference c addresses the role of the Department of Homeland Security (DHS) and requires the development of a National Response Framework (NRF) that will impact the FRP as well as most other federal contingency plans. Until the NRF is published, the FRP remains the primary plan for mobilizing federal government resources under the Stafford Act to assist state and local governments when major disasters, emergencies or terrorist attacks overwhelm the state’s ability to respond effectively. An interim update to the FRP that incorporates the role of DHS was issued in January 2003 and is available on the FEMA website.

6241.1 FRP Key Concepts

Emergency support function. The FRP groups disaster response actions into twelve functional areas known as ESFs and assigns a federal agency to chair each ESF and administer its response actions. While it is possible for USCG units to provide support under any of the twelve ESFs the two most likely ESFs for response and possible chair/vice-chair responsibilities are ESF-1 (transportation) and ESF-10 (hazardous materials). The current understanding is that the USCG’s role and responsibilities for ESF-1, which were assigned as part of our Department of Transportation role and are described in reference d, will remain in place until March 04. The USCG’s role and responsibilities for ESF-10 include all of those contained in the National Contingency Plan (reference e) as well as releases of hazardous materials beyond those covered under the NCP (e.g., household hazardous waste cleanup). The NCP is incorporated in its entirety into the FRP under ESF-10.

Mission assignments.

(1) The administrative vehicle by which FEMA tasks a federal agency to respond is known as a mission assignment. The mission assignment is a task-specific work order identifying response operations to be executed under an assigned ESF. The primary response agency may enlist the assistance of other federal agencies by issuing an interagency agreement (IAG). Federal agencies must use their own funds in the execution of a mission assignment or IAG then seek reimbursement from FEMA. It is imperative that USCG units and other agencies operating at the request of the FOSC receive a mission assignment or IAG for any FEMA (or primary agency) tasking as FEMA will not reimburse for emergency services rendered if a mission assignment or IAG does not specify those services. However, response units should not delay responses that fall under existing statutory authorities/responsibilities waiting for a mission assignment or IAG. The FOSC should direct the response and allow higher authority to work out the funding.

(2) Reference f provides a listing of some of the tasks for which ESF-10 mission assignments can be expected. EPA and USCG personnel continue to work with FEMA to identify common ESF-10 tasks and to pre-script mission assignments for these common tasks in order to speed the process.

(3) FEMA may assign a limited number of pre-Stafford Act declaration mission assignments in order to stage federal and FOSC-requested response assets for events related to forecasted disasters such as hurricanes. In the past, the USCG has pre-staged personnel via these pre-declaration mission assignments. The process is slightly more involved, emphasizing the need for close coordination between district staffs, area, NPFC, FEMA and EPA prior to a disaster response.

Regional Operations Center (ROC). Upon a Stafford Act declaration, FEMA activates the appropriate ROC. The ROC coordinates federal response efforts until a Disaster Field Office (DFO), staffed by an Emergency Response Team (ERT), is established in the field and the FEMA Federal Coordinating officer (FCO) assumes coordination responsibility (note: there is generally one DFO per impacted state). The FCO has the legal authority to assign missions to federal agencies. The ROC generally operates from the FEM regional office for the affected area. Primary functions of the ROC include: communicating with the impacted state(s); coordinating deployment of the ERT-A (emergency response team - advance element) to field locations; assessing damage information; and developing initial mission assignments.
(1) **USCG/FOSC staffing support for the ROC.** If the disaster impacts the coastal zone, the USCG will normally provide one person knowledgeable in USCG / Area Contingency Plan response capabilities to the ROC to ensure the interests and capabilities of the USCG are recognized at the outset of response operations and to coordinate the initial issuance of mission assignments/IAGs. Typically, the Seventh Coast Guard District office will provide this person. The individual assigned must have sufficient experience and maturity to work with mid-to-upper level management personnel from other agencies and to operate under stressful conditions for long hours. Districts normally ensure personnel are rotated every two-to-three weeks to avoid response fatigue.

**State Emergency Operations Center (EOC).** During a disaster response each state will activate an EOC to coordinate state response efforts and requests for federal assistance.

(1) **USCG/FOSC staffing support for an EOC.** The Seventh Coast Guard District will normally provide a senior officer as an Emergency Preparedness Liaison Officer (EPLO) to each activated EOC. The EPLO advises the state on USCG / FOSC response capabilities, identifies to the state response requirements appropriate for USCG / FOSC intervention, assists the state in requesting federal assistance via the ROC or DFO and keeps the district informed of pending request, capability requirements, etc. It should be emphasized that the EPLO’s role is not a “fishing” expedition to look for work for the FOSC, but as a technical advisor informing the state on USCG / FOSC capabilities/existing responsibilities and processes for obtaining USCG / FOSC assistance.

**Emergency response team.** The ERT is the FCO’s multi-agency response staff that includes the regional chair and support staff for each activated ESF. The ERT is located in the DFO. For incidents that impact just the coastal zone and require ESF-10, the USCG will be the regional ESF-10 incident chair with EPA as the vice-chair. For incidents that impact both the inland and coastal zones and require ESF-10, EPA will be the regional ESF-10 chair and the USCG the vice-chair. The USCG does not staff ESF-10 for incidents that do not impact the coastal zone.

(1) **USCG / FOSC staffing of the ERT.** In accordance with the FRP, the Coast Guard Seventh District chief of Marine Safety fills the USCG role as ESF-10 chair/vice-chair. As it is unlikely that a district chief of Marine Safety would be able to leave the district office during a major disaster response, he/she has designated a senior member of his/her staff to perform this function. The ESF-10 chair/vice chair will be supported by USCG and EPA personnel/watch standers.

**Emergency response team - advance element.** Prior to the establishment of the DFO and the ERT, an ERT-A is deployed to each impacted state. The ERT-A is the initial federal interagency group to respond to an incident in the field. The ERT-A normally deploys to the state emergency operations center (EOC) to obtain and evaluate disaster-related information, identify specific state requirements for federal response assistance and establish a location for the DFO. Typically, the DFO will be located as close to the impacted area as possible as designated by the FCO. Once the DFO is ready, the ERT-A folds into the ERT and helps to staff the DFO. USCG / FOSC participation on the ERT-A is critical for identifying tasks appropriate for the USCG / FOSC, aligning response operations with issued mission assignments and providing a conduit to USCG / FOSC resources. As with the EPLO, USCG personnel assigned to an ERT-A are not looking for work, but ensuring that support requested by the state is tasked appropriately.

(1) **USCG/FOSC staffing support to the ERT-A.** For incidents requiring ESF-10 support that impact the coastal zone, at least two USCG watch standers will be assigned to each ERT-A to support 24/7 operations. The Seventh Coast Guard District will coordinate USCG watch standers. Watchstanders must be able to speak with authority on behalf of the USCG and FOSC(s) and have sufficient experience and maturity to interact with senior members of federal, state, or local agencies.

### 6241.2 Coast Guard Area Commander Support

Districts shall contact Coast Guard Atlantic Area if augmentation is required to fill ESF responsibilities. LANTAREA, with Shore Infrastructure and Logistics Center (SILC), will develop an ad hoc pool of ESF-
knowledgeable personnel from amongst the districts, area, and SILC staffs to fill augmentation requirements.

6241.3 USCG ESF Watchstander Responsibilities

The USCG ESF Watchstander on the ERT-A and ERT is responsible for coordination and flow of information between the FCO/ESF chair and district, management of ESF-10 mission assignments, tracking ESF-10 response operations and costs in support of each mission assignment and providing subject matter expertise on USCG assets and capabilities.

Under the direction of the ESF-10 chair/vice-chair, the ESF-10 Watchstander shall:

a. Serve as the USCG ESF-10 representative in the DFO.
b. Coordinate information management for all Coast Guard ESF-10 activities.
c. Coordinate emergency response activities with:
   1. The affected district.
   2. USCG EPLO at the EOC (if assigned).
   3. The EPA ESF-10 Watchstanders.
   4. Other federal agency counterparts within the ERT-A/ERT.
   5. Federal agencies having control of supporting resources within the FRP response infrastructure.
   6. Outside departments and agencies supporting ESF activities.
d. Provide the principal USCG representation and liaison for ESF-10 activities with the FCO and the ESF-10 chair.
e. Provide daily reports to the USCG ESF-10 chair/vice-chair, and the district(s) for the impacted area.
f. Provide timely reports to other ESF counterparts within the ERT-A/ERT.
g. Attend annual training focusing on the FRP and the activation/role of ESFs. Training should include joint formal instruction with FEMA and EPA as well as practical exercises.
h. Have an operational understanding of response actions under this plan and national-level contingency plans. Be cognizant of the function and responsibility of the regional response team mandate to support ESF activities.
i. Provide the necessary forum for the free exchange of information, consistent with statutes, regulations, and other directives between the district, other regional emergency response coordinators, and other support agencies regarding their emergency preparedness functions.
j. Facilitate with ESF counterparts the passing of mission assignments and IAGs, in support of FOSC response actions, to the cognizant district for processing/follow-on tasking to the appropriate field units.

6241.4 Communications

Normally the district serves as the primary hub for operational information between the ERT, the regional response team field units, the National Pollution Fund Center (NPFC) and LANTAREA. The USCG ESF Watchstander shall ensure the affected district receives up-to-date information on mission assignments. The district in turn shall task the appropriate field units to accomplish the mission and ensure that the ESF Watchstander receives up-to-date information on the status of all ESF related responses. The district will include in the daily Situation Report (SITREP) to LANTAREA any ESF actions undertaken by USCG units, with copy to NPFC. SITREPS, executive summaries, website/internet conduits, and other means of communication shall be shared between the ERT-A/DFO Watchstander(s) and the district routinely during deployment to facilitate informational needs. For incidents
impacting a limited geographic area, the district may consider giving the ESF-10 staff liaison directly with FOSCs/incident commanders.

6242 Funding processes for ESF-10

The following funding processes for ESF-10 modify those described in reference g. Mission assignments or IAGs, are faxed to the district by either the ESF-10 Watchstander or EPA. The district then operationally approves the mission assignment or IAG and faxes it to the National Pollution Funds Center (NPFC) noting the applicable mission assignment number and total funding authorized. The NPFC signs the mission assignment or IAG and issues an accounting message with a Disaster Project Number (DPN) to the district. The districts and subordinate units then use the DPN as they would a Federal Pollution Number (FPN) used for oil spills for all operations/costs associated with the applicable mission assignment or IAG. However, unlike CERCLA and the OSLTF, the Stafford Act only pays for direct/actual costs and not the USCG standard rates used for pollution cases.

6300 Cost

The Cost Unit is responsible for the following functions:

1. Manage, coordinate, and perform cost documentation in accordance with OSLTF and State requirements to account for response costs.
2. Plan, coordinate, document, and account for response costs based on the time personnel, equipment, and other resources accountable to the response (from the Time Unit).
3. Identify additional resources and logistics support needed to perform cost documentation and time keeping services.

In small responses, the time and cost units are typically combined.

6310 Cost Documentation and Recovery Procedures

There are three primary aspects to successful cost recovery and documentation of significant pollution events: rapid start; dedicated personnel; and correct forms and submission procedures.

The requirement for a rapid start to documentation will be apparent upon examining the necessary forms and procedures. Whenever this plan is activated (i.e., the response exceeds the vessel or facility response plan, the state or federal government take an interest, or when there is no responsible party taking action), the following procedures must be executed by the Cost Unit:

1. Determine whether OSLTF funding applies. Based upon Unified Command decisions on response action funding, determine whether other sources of funding apply.
2. Estimate the OSLTF and other funding ceilings required. In many responses, both an OSLTF and CERCLA ceiling will be established, with various response costs charged against one fund or the other depending on the decisions of the Unified Command and the limitations of the two funds. Similarly, other funds (such as for Search and Rescue, vessel salvage, and so on) may also be established, each with its own independent ceiling.
3. Obtain a Federal Project Number (FPN) for the OSLTF fund, a CERCLA Project Number (CPN) for the CERCLA Fund, and authorized ceilings for each all identified funds. For specific guidance on the obtaining of FPNs and CPNs, see Appendix 9720.
4. If any fund advice is needed, contact the National Pollution Fund Center Gulf Coast and Midwest Regional Case Manager at (202) 493-6723. If the regional manager is not available, the NPFC duty officer can be paged by calling (800) 759-7243, PIN 2073906, or by calling the National Response Center at 800-424-8802.

5. Obtain copies of PRFAs and Authorizations to proceed from the Procurement Unit.

6. Identify and distribute the appropriate cost documentation forms.

7. Monitor contractors for all agencies on a daily basis. Collect both receipts and Daily Resource Reports (form CG-5136 series) from the Time Unit.

8. Monitor U.S. Coast Guard and other Unified Command operational forces on a daily basis. Collect copies of aircraft use logs and vessel operating/navigation logs in addition to Daily Resource Reports (form CG-5136 series) from the Time Unit.

9. Monitor OGA operational forces on a daily basis. Collect SF-1080 or SF-1081 vouchers and supporting OGA documentation. Normally, the type of required documentation will be detailed in the PRFA for the OGA response contribution from the Time Unit.

10. Add up obligations from all three venues (contractor, unified command, and OGAs) against each fund ceiling (for this reason, it will be imperative to understand fully Unified Command decisions about which actions/contracts are directed to be made against which funding source). Include direct costs (Type I costs) and Anticipated Costs (estimates or Type II costs) and track the obligations against the various ceilings on a daily basis.

11. Well before a ceiling is actually reached, project the “burn rate” and advise the Unified Command when a ceiling must be increased.

12. With Unified Command approval, increase various fund ceilings.

13. Compile and maintain daily an inventory of all equipment purchases by purchasing agency and charged fund.

14. Maintain daily reports of costs against a ceiling as required by the NPFC (for the OSLTF ceiling) and each other fund/celling. Develop a daily display and post copies at each Situation Unit Display under the direction of the Situation Unit Leader and Display Processor.

15. After the response, certify contractor invoices within the required timeframe. For NPFC/OSLTF contracts, the required timeframe is ten days. Be certain to obtain and clearly identify the required timeframe for all other funds and track unit performance against these required cycle times. In general, certification will require acknowledgement from the Operations Section that the invoiced goods or services were received, and acknowledgement from the appropriate contracting official (depending on agency/organization) that the cost for the good or service are as per the agreement.

16. Forward all approved contractor invoices to the appropriate agency processing center for payment, keeping copies for the Unified Command’s records.

17. Within 120 days of the end of the cleanup, complete Financial Summary reports for each and every fund/ceiling managed by the Section.

There are two principle sources of assistance in documenting costs that are available to all organizations. These are the assigned Case Officer at the National Pollution Fund Center and the District Response Advisory Team. Although these sources are available to all organizations, it may be more efficient to coordinate their assistance through Sector Jacksonville.

There are two alternatives for non-federal organizations concerning forms on which reimbursable costs are documented. The first alternative is the organization’s documentation form that has been pre-approved by the National Pollution Fund Center. If an organization lacks a pre-approved documentation form it may use the federal.
Personnel rates will be determined to the maximum extent in advance. Contractor rates for contractors with Basic Ordering Agreements are fixed by the BOA. Standard rates for Coast Guard personnel are contained in Commandant Instruction 7310.1 (series). Other agencies are encouraged to have established personnel rates that can be furnished to the OSC. For organizations and contractors not having standard rates, this fact should be made known to the OSC early in the spill so that it may be addressed.

In spills where total expenditures are expected to be less than $50K, cost documentation may be collected by the FOSC and forwarded to the National Pollution Funds Center at the conclusion of the spill response. In larger spill responses this information must be compiled and forwarded daily to the OSC and then the NPFC.

The Cost Unit is responsible for collecting all cost data, performing cost effectiveness analyses, and providing cost estimates and cost saving recommendations for the incident. Refer 9200 Personnel and Services Directory, 9720.100 Incident Management Handbook and 9720.200 ICS Forms Database for necessary information.

6320 Typical Northeast and Eastern Central Florida Agency Assignments to the Cost Unit

As noted, there are three primary aspects to successful cost recovery and documentation of significant pollution events: rapid start; dedicated personnel; and correct forms and submission procedures.

The need for dedicated documentation personnel varies with the amount of agency involvement. In a significant spill dedicated Coast Guard resources are a must. The individuals dedicated to documentation must not be assigned principal or back up operational tasks. They also must not be visiting or temporarily assigned personnel who will depart at the end of the active response.

<table>
<thead>
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<th>Agency / Organization Typically Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Unit Leader</td>
<td>U.S.C.G. National Pollution Fund Center Case Manager</td>
</tr>
<tr>
<td>OSLTF/CERCLA Cost Analyst</td>
<td>Sector Jacksonville Response Petty Officer or Marine Safety Detachment Port Canaveral Response Petty Officer</td>
</tr>
<tr>
<td>Salvage Cost Analyst</td>
<td>Florida Fish and Wildlife Conservation Corps or U.S. Army Corps of Engineers</td>
</tr>
<tr>
<td>Local Agency CERCLA Cost Analyst</td>
<td>Local Fire Department Budget Staff</td>
</tr>
<tr>
<td>Responsible Party Cost Analyst</td>
<td>Responsible Party Accountant</td>
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<td>RESERVED</td>
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6400 Time

The Time Unit is responsible for recording personnel and equipment time expenditures on the response, and in larger responses for managing the response commissary. Typical duties include:

(1) Determine agency/organization time reporting requirements for personnel and equipment, and assure the right time-documentation is made by operational personnel according to the governing time requirements. Where the situation is unclear, federal time collection data forms shall be used.

(2) Maintain separate logs for overtime expenditures.

(3) Track personnel and equipment hours against fatigue limits and resource burn-rate targets;
(4) Submit daily summarized personnel and equipment time reports to the Cost Unit in a format agreed upon as satisfying the Cost Unit’s cost recovery procedures.

(5) Establish a commissary on larger and long-term responses;

(6) Assure records are updated and provided continuously to agency representatives for their personnel and equipment time expenditures. Provide complete time records to the agency upon demobilization of resources.

(7) Identify, track, and raise safety-related fatigue/burn-rate overtime issues to the Finance/Administration Unit Leader.

In small responses, the time and cost units are typically combined.

### 6410 Personnel and Equipment Time Recording Procedures

[RESERVED for future Area Committee development.]


### 6420 Typical Northeast and Eastern Central Florida Agency Assignments to the Time Unit

[RESERVED for future Area Committee development.]

### 6500 Compensation/Claims

The Claims and Compensation Unit is responsible for the following functions:

1. Receive, coordinate, document, and process claims against the OSLTF, NRDA, or State funding sources.

2. Coordinate evaluation of personal property damage claims.

3. Identify additional resources and logistics support needed to process claims.


5. Overall management and direction of all compensation for Injury Specialists and Claims Specialist assigned to the incident.

### 6510 Injury and Claims Procedures

[RESERVED for future Area Committee development.]
6520 Typical Northeast and Eastern Central Florida Agency Assignments to the Claims & Compensation Unit

[RESERVED for future Area Committee development.]

6600 Procurement

The Procurement Unit is responsible for the following functions:

1. Negotiate, coordinate, document, and manage all contracts needed to support response operations.
2. Manage, coordinate, document, and account for all procurement orders needed to support response operations.
3. Manage, coordinate, document, and account for all payments made to support response operations.
4. Identify additional resources and logistics support needed to accomplish contracting and procurement services.
5. Report on the status of contracting, procurement, and payment services.
6. Administer all financial matters pertaining to vendor contracts.


6610 Procurement Processes and Procedures

Should the FOSC wish to hire a contractor that has a Basic Ordering Agreement (BOA) with the Coast Guard, the contractor is issued an Authorization to Proceed. The OSC must also send a message to the SILC procurement branch (fcp) within 24 hours indicating that an Authorization to Proceed has been issued.

Should the FOSC wish to hire a contractor that does not have a BOA with the Coast Guard, the FOSC must first determine that a BOA contractor is not available or is unable to perform the required tasks. D7(m) should then be notified of the FOSC's intent to hire a non-BOA contractor. The FOSC may then issue the Authorization to Proceed and send the message as indicated above. The message should clearly indicate that a non-BOA contractor has been hired and why.

The FOSC may "hire" federal organizations by the use of a Federal Agency Pollution Removal Funding Authorization. The organization will document its costs using the Pollution Incident Daily Resource Report and bill the fund using Form SF 1080.

The FOSC may hire other governmental organizations (state and local) by the use of a Non Federal Agency Pollution Removal Funding Authorization. The organization will document its costs using the Pollution Incident Daily Resource Report or other system approved the NPFC.

Once a FPN has been obtained, all message traffic must contain the National Pollution Funds Center (NPFC), Coast Guard SILC as information addressees.

http://www.uscg.mil/SILC/
6620 Typical Northeast and Eastern Central Florida Procurement Unit Assignments

[RESERVED for future Area Committee development.]

6700 Human Resources

The Human Resources Unit is primarily responsible for providing direct human resource services to the response organization, including compliance with all labor-related laws and regulations. In the performance of this last responsibility, the Human Resources Unit may serve as the implementing arm of the Safety Officer in assuring compliance with OSHA and other safety related training/qualifications outlined in the Safety Plan. The Human Resources Unit is responsible for the following functions:

1. Serve as the single point of contact for incident personnel to discuss human resources issues and/or concerns;
2. Issue Standing Orders to all military and Coast Guard Auxiliary personnel including decisions regarding uniform of the day, etc.;
3. Serve as the single point of contact for receiving reports of inappropriate behavior, acts, or conditions parallel to the operational, logistics, and planning chains of command;
4. Oversee and process all employee review and performance evaluations as completed by the operational, logistics, and planning supervisors;
5. Oversee and process all employee incentive and meritorious action awards, including the processing of military awards, for operational, logistics, planning, and finance/administration supervisors, including a peer review of any proposed incentives/awards to assure consistency and factual accuracy; and
6. Oversee and process all employee personnel records to assure required entries and notations are made in accordance with the various standards of Unified Command agencies/organizations.

6710 Human Resources Processes and Procedures

[RESERVED for future Area Committee development.]

6720 Typical Northeast and Eastern Central Florida Human Resource Unit Assignments

[RESERVED for future Area Committee development.]

6800 Reserved

6900 Reserved for Area/District
Northeast and Eastern Central Florida Area Contingency Plan

7000 Hazardous Materials/Substances

This Annex defines the unified response to marine hazardous materials releases under this plan; this plan is activated whenever a hazardous material is released above the Reportable Quantity within the area defined in Annex 1000 of the plan. State, local, and federal responders are bound by this plan for all such responses. This Annex is organized as follows:

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7010 Introduction

Contingency planning is essential to the successful implementation of any system designed to manage and contain a hazardous substance release. Contingency plans require a coordinated community response that may also involve state and federal agencies. Planning and coordination of services are equally critical at the national and regional level. The federal government established a National Contingency Plan (NCP) to promote coordination of resources and services of federal and state response systems. To oversee this plan, a National Response Team (NRT) and a National Response Center, a network of Regional Response Teams (RRTs), and a group of On-Scene Coordinators (OSCs) have been established.

This hazardous materials/substances annex will outline and illustrate the local, state, and federal actions needed to properly mitigate a release of hazardous substances into the environment. This plan provides an integrated federal document to consolidate the actions by various agencies and organizations in support of the progression of the response.

This document identifies standard operating procedures for entering and leaving sites, accountability for personnel entering and leaving sites, decontamination procedures, recommended safety and health equipment, and personal safety precautions. The plan includes a list of emergency response equipment appropriate to the various degrees of hazard based on EPA’s four levels of protection (Levels A through D). The priority of response is to mitigate the affects of the hazardous substance release while protecting responders and the community.

7011 Background Information

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR part 300) establishes the National Response System (NRS) as the federal government’s response management system for emergency response to releases of hazardous substances into the environment of the United States.

This system functions through a network of interagency and intergovernmental relationships and provides for coordinating response actions by all levels of government to a real or potential hazardous substances incident. A
primary mission of the federal system is to provide support to state and local response activities. Hazardous substances response under the NRS is divided into three organizational levels: the National Response Team (NRT), Regional Response Teams (RRTs), and On-Scene Coordinators (OSC).

At the National level, the NRT is comprised of 16 federal agencies with interests and expertise in various aspects of emergency preparedness and response to pollution incidents. The NRT provides national planning and policy guidance prior to incidents, and assistance as requested during an incident. Like the NRT, the RRTs are planning, policy, and coordinating bodies, and usually do not respond directly to the scene; rather they provide support, advice, and assistance to the Federal OSCs. All NRT member departments and agencies, as well as state and local participants, are represented on RRTs.

Federal OSCs are the federal officials pre-designated by EPA and the USCG to coordinate response resources. The OSC, either directly or through his or her staff, monitors, provides technical assistance, and/or directs federal and potentially responsible party (PRP) resources. As the state and local responder’s gateway to the resources of the NRS, it is the OSC’s responsibility to provide access to resources and technical assistance that may not otherwise be available to a community. Under the NCP, if federal involvement is necessary because state and local resources have been exceeded, the OSC is obligated to coordinate the use of these resources to protect public health and the environment.

During a HAZMAT incident, EPA will usually provide OSCs in the inland zone, and the USCG will generally provide OSCs in the coastal zone. The OSC coordinates all federal containment, removal, and disposal efforts and resources during an incident under the NCP or the Federal Response Plan (FRP). The OSC is the point of contact for the coordination of federal efforts with those of the local response community.

Agencies other than EPA or USCG might provide the OSC depending on the incident. While EPA and USCG have primary responsibility under federal laws and regulations, under CERCLA, DOD, DOE, and other federal agencies provide OSCs for incidents for which they have responsibility for releases of hazardous substances. If a federal agency – other than EPA, USCG, DOD, or DOE – has responsibility for an incident, they only provide the OSC if the incident involves non-emergency removal actions.

Each of the agencies in the NRS provides resources and technical expertise and has access to a wide range of federal assets, such as equipment and special expertise, through the RRT.

During an emergency, or for other response support needs, the NRS can be accessed 24-hours a day by calling the National Response Center (NRC) at 1-800-424-8802. Located in the USCG headquarters command center and operating 24-hours a day, the NRC immediately relays reports to the cognizant, pre-designated OSC.

The NRC receives reports of all chemical, radiological, etiological (causes of a disease or abnormal condition), and biological releases regulated by various federal statutes. (However, the only statutory requirements for reporting to the NRC are the Clean Water Act (CWA) for oil discharges, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) for hazardous substance releases, and the Hazardous Materials Transportation Act (HMTA) for hazardous materials releases.

When a discharge or release is discovered or reported, the pre-designated OSC is responsible for immediately collecting pertinent facts about the discharge or release to evaluate the situation. Based on the evaluation, if the OSC decides a federal emergency response action is necessary, he or she works with state and local emergency response teams, local police and firefighters, and/or other federal agencies to eliminate the danger.

While all significant hazardous substance releases must be reported to the NRC, many inland responses are effectively handled without any direct involvement by the federal government. Others require federal assistance when the incident exceeds state and local capabilities. In other words, the federal government acts as a “safety net” for state, local, tribal, and private party responders.
7012 Assumptions/Planning Factors

The assumptions and planning factors used to develop this plan are detailed in Appendix 9400, Section 9422.

7013 Concept of Operations and Governing Principles

This section outlines governing principles and concepts of operations for response to hazardous materials releases. The section is organized as follows:

7013.1 National Response System Concepts: Response

7013.1 National Response System Concepts: Response

This figure depicts the response process. Over ninety-five percent of incidents are handled at the local level. Under Title I CERCLA, EPA has authority to reimburse local community authorities for certain expenses regarding hazardous substance response incurred in carrying out temporary emergency measures to prevent or mitigate injury to human health or the environment.

The federal response is designed to fill the gaps and support the local response. Normally a federal lead response would not occur unless the local and state response system is overwhelmed or there are incident issues that need to be addressed by the federal authority and federal assistance is required.
<table>
<thead>
<tr>
<th>Tier</th>
<th>Tier Description</th>
<th>Incident Description</th>
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<tbody>
<tr>
<td>Tier 1 - Local Response for Environment and Health Safety</td>
<td><strong>“Potential Emergency Condition”</strong>&lt;br&gt;IC: Local Fire Chief or HAZMAT Team Leader&lt;br&gt;Potential Supporting Agencies:&lt;br&gt;Fire Department Emergency Medical Police&lt;br&gt;Partial EOC Staff&lt;br&gt;Public Information office&lt;br&gt;CHEMTREC&lt;br&gt;National Response Center&lt;br&gt;ACP Action: Provide support for local response at the request of the IC in way of technical expertise, resources, and/or funding. Focus is to fill response gaps identified by IC.</td>
<td>An incident or threat of a release which can be controlled by the first response agencies and does not require evacuation of other than the involved structure or the immediate outdoor area. The incident is confined to a small area and does not pose an immediate threat to life or property.</td>
</tr>
<tr>
<td>Tier 2 – Environmental and Health/ Safety Response Under the NCP</td>
<td><strong>“Limited Emergency Condition”</strong>&lt;br&gt;Leading to:&lt;br&gt;<strong>“Full Emergency Condition”</strong>&lt;br&gt;IC: Federal On Scene Coordinator (FOSC)&lt;br&gt;UC: FOSC, State/Local OSC, and/or Property Owner/Operator&lt;br&gt;Potential Supporting Agencies:&lt;br&gt;All Agencies listed in Tier 1&lt;br&gt;HAZMAT Teams&lt;br&gt;EOC Staff&lt;br&gt;Public Works Dept&lt;br&gt;Red Cross&lt;br&gt;County Emergency Management Agency&lt;br&gt;State Police&lt;br&gt;Public Utilities&lt;br&gt;For Larger Events:&lt;br&gt;All Agencies listed in Tier 1 and above&lt;br&gt;Mutual Aid Fire, Police, Emergency Medical&lt;br&gt;State Emergency Management&lt;br&gt;State Environmental Agency&lt;br&gt;State Department of Health&lt;br&gt;EPA&lt;br&gt;USCG&lt;br&gt;All NRS supporting agencies</td>
<td>An incident involving a greater hazard or larger area which poses a potential threat to life or property and which may require a limited evacuation of the surrounding area.&lt;br&gt;Leading to:&lt;br&gt;An incident involving a severe hazard or a large area which poses an extreme threat to life and property and will probably require a large scale evacuation; or an incident requiring the expertise or resources of county, state, federal, or private agencies/organizations</td>
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7014 Scenario Based Planning

This section outlines the Area Plans for responding to hazardous materials releases in our Area of Responsibility on a scenario-specific basis.

7014.1 HAZMAT Release Scenarios

The hazardous materials release scenarios are fully defined and developed in Appendix 9400 to this plan; see section 9442. The scenarios considered include:
- Release from a ship at sea – container ship fire
- Release from a Ship in port – Chemicals on Container Ship
- Release from a Facility/Pipeline – Sulfur Dioxide Release from a Shoreline Storage Tank
- Release from Over-ground Transportation, Truck/Train – Chlorine Release from Train Derailment
- Caustic Soda Spill – Barge Allision

7014.2 Hazard Analysis and Inventory

Hazard analysis is a necessary component of comprehensive emergency planning for a community. It is a three-step decision-making process comprised of hazard identification, vulnerability analysis, and risk analysis. This section focuses primarily on hazard identification. Hazard analysis is usually the task of an agency (e.g., the fire department, the Area Committee, or the LEPC) to review the hazard analysis information for their area.

The first task in conducting such an analysis is to complete an inventory of the hazardous materials present in the community and to determine the nature of the hazard. This is a key step because it permits planners to describe and evaluate risks, and to allocate resources accordingly. This information should be available to the Regional or Area
Committee through the SERC or LEPC. These materials include fuels and chemicals, such as chlorine, ammonia, and hydrochloric and sulfuric acids. Such materials should be given special attention (vulnerability analysis) in the planning process.

In this context, a hazard is any situation that is capable of causing injury or impairing an individual(s) health. During the process of identifying hazards, facilities or transportation routes will be pinpointed that contain materials that are potentially dangerous to humans. The identification of hazards also should provide information on:

- The types, quantities, and location(s) of hazardous materials in the community, or transported through a community; and
- The nature of the hazard that would accompany incidents, such as explosions, spills, fires, and venting to the atmosphere.

In identifying hazards, hospitals and educational and governmental facilities should not be overlooked since they all contain a variety of chemicals. Major transportation routes and transfer points, such as airports, vessels in port, railroad yards, and trucking terminals, should also be included in the overall hazards identification plan. SARA Title III planning provisions address many of these potential transportation risk areas by requiring facility cooperation in plan preparation and by including specific risk areas as well as a wide range of chemical handlers, from manufacturers to service-related businesses.

Risk analysis includes the probable damage that may occur if a chemical incident occurs. Information that is necessary for risk analysis includes:

- The type of risk to humans, such as an acute, chronic, or delayed reaction.
- The groups that are most at risk.
- The type of risk to the environment, such as permanent damage or a recoverable condition.
- Many documents can be of assistance in conducting

7015 Geographic Based Planning

The response to hazardous materials releases on geographic basis is outlined by geographical sub-area in Appendix 9400, Section 9432:

- 9432.1 St. Marys River / Fernandina
- 9432.2 St. Johns River / Jacksonville
- 9432.3 ICW
- 9432.4 Port Canaveral / Cape Canaveral Vicinity
- 9432.5 Offshore

7100 Government Legal Authorities, Policy, and Responsibility for Responding

This section details the governmental authorities, policy, and responsibility for responding to hazardous materials releases and draws largely upon Annex 1000 of this plan. Additional details pertinent to hazardous materials response as distinct from oil pollution response are presented below.

7110 Federal Policy

See Section 1300 of this plan.
7111 State Policy
See Section 1410 of this plan.

7111.1 Florida
See Section 1410.1 of this plan.

7111.2 Georgia
See Section 1410.2 of this plan.

7112 Local Policy
See Section 1420 of this plan.

7113 State and Federal Cooperative Agreements
- United States Environmental Protection Agency (USEPA) and United States Coast Guard (USCG), 1982
- United States Departments of Transportation (USDOT) and Interior (USDOI), 1971
- United States Fish and Wildlife Service (USFWS) with USCG, 1979
- USEPA and USCG, 1981
- USCG and United States Navy (USN), 1980
- USEPA and United States General Services Administration (GSA)

7200 Response Management/Incident Command

7210 Organizational Roles and Responsibilities

7210.1 EPA, USCG, DOE, and DOD as On-Scene Coordinators
Federal On-Scene Coordinator (OSC). Under the National Oil and Hazardous Substances Contingency Plan (NCP), the Federal OSC can provide technical expertise in assessing the hazards posed to public health and the environment from a potential hazardous material/substance incident. OSCs also have the authority to deploy federal resources to do monitoring, sampling, risk assessment, safety and health analysis, clean up, disposal, and other response requirements.

7210.2 Centers for Disease Control and Prevention (CDC)
CDC’s responsibility, on behalf of the Department of Health and Human Services (HHS), is to provide national leadership in the public health and medical communities in a concerted effort to detect, diagnose, respond to, and prevent illnesses, including those that could occur as a result of biological or chemical contamination.

This task is an integral part of CDC’s overall mission to monitor and protect the health of the U.S. population. CDC is also responsible for identifying appropriate personal protective equipment requirements for emergency workers.
Specific PPE requirements for sampling and remedial activities can be found at:

http://www.cdc.gov/

In addition, questions about the appropriate use of antibiotics and other health related issues should be addressed to CDC.

**7210.3 Agency for Toxic Substances and Disease Registry (ATSDR)**

The Agency for Toxic Substances and Disease Registry (ATSDR) is also participating with CDC in this effort and will provide expertise in the area of industrial chemical terrorism. In this document, the term CDC includes ATSDR when activities related to chemical terrorism are discussed. In addition, colleagues from local, state, and federal agencies; emergency medical services (EMS); professional societies; universities and medical centers; and private industry can provide suggestions and information.

**7210.4 Department of Homeland Security (DHS)**

The Department of Homeland Security provides assistance and expertise from the various directorates. FEMA serves as the primary coordinating agency for disaster response and recovery activities. To carry out this role, FEMA executes a wide range of tasks, including processing governors’ requests for disaster assistance, coordinating federal operations under disaster declaration, and appointing a federal coordinating officer for each state where there has been a declared disaster. During a cross-border incident, the U.S. Customs Service assists with the safe and swift movement of equipment and personnel across the U.S. border.

**7210.5 General Services Administration (GSA)**

GSA provides logistical and telecommunications support during an incident. This support may include providing space, telephones, transportation, supplies, equipment, and procurement-related services. GSA can be contacted to identify contractors that are qualified for sampling and decontamination/disinfection of hazardous material/substance type substances.

**7210.6 Department of Labor (DOL)**

DOL’s Occupational Safety and Health Administration (OSHA) has the responsibility and authority to ensure that response workers are protected and to determine if response sites are in compliance with safety and health standards. In this role, OSHA provides consultation and enforcement as appropriate and requires adequate training, controls, and personal protective equipment to ensure that responders are properly protected during a response.

**7210.7 Occupational Safety and Health Administration (OSHA)**

OSHA’s responsibility is to ensure safe and healthful working conditions for working men and women. As such, OSHA is working with other federal agencies to increase knowledge of the hazards of anthrax in the workplace and to help identify methods to protect workers from those hazards. OSHA believes that it can best help employers and workers protect themselves by providing information and assistance that should help reduce employee exposure to and risk from hazardous material/substances. OSHA is also working with other Federal agencies and employers including CDC, the National Institute for Occupational Safety and Health (NIOSH), the FBI, and EPA to make sure
that the guidance OSHA gives is the best and most current information available. For more information about OSHA’s role in hazardous material/substance response, visit.

http://www.osha.gov/

7210.8 U.S. Department of Agriculture (USDA)
The USDA’s Agricultural Research Service can be contacted for information regarding its procedures for handling anthrax and anthrax samples. Such procedures and protocols may be helpful since anthrax is routinely handled by their lab personnel and since CDC is using ARS labs to actually analyze their samples. The USDA’s Forest Service, Agricultural Research Service, and other agencies have personnel, laboratory, and field capabilities to evaluate, monitor, and control situations where natural resources, including soil, water, wildlife, and vegetation, have been impacted by hazardous substances and other natural or manmade emergencies. Through the Forest Service, additional response equipment is also available.

7210.9 Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA)
NOAA, through the Scientific Support Coordinators (SSC), provides scientific information and expertise to mitigate the impacts of oil and hazardous substance releases on natural resources in coastal areas. NOAA’s expertise includes environmental chemistry, contaminant transport in air and water, weather forecasts, oceanographic conditions, and marine fisheries and mammals. During hazardous material/substance incidents Coast Guard OSCs should plan on using the NOAA SSC to coordinate the science and technical expertise within the Unified/Incident Command structure. Although NOAA may not have direct technical expertise concerning some hazardous material/substance agents or substances, their proven coordination and information management skills are institutionalized within response planning and strategic/tactical decision making for the Coast Guard OSCs serving this region.

7210.10 Department of Defense (DOD)
DOD provides a wide array of services from its many agencies and offices. In emergency situations, DOD may provide temporary restoration of essential public facilities and services. For response to contaminant release incidents, DOD’s Supervisor of Salvage and Diving, the Army Corps of Engineers, the Weapons of Mass Destruction Civil Support Teams, and the Chemical Biological Rapid Response Teams have extensive expertise in containment, collection, and mitigation.

7210.11 Department of State (DOS)
DOS helps coordinate international response efforts when discharges or releases cross international boundaries or involve foreign flag vessels. DOS also coordinates requests for NRS assistance from foreign governments.

7210.12 Department of the Interior (DOI)
DOI, through its bureaus and offices and based on its extensive land and resource management responsibilities, provides scientific expertise to FOSCs to help protect sensitive natural, recreational, and cultural areas and resources and to facilitate environmental recovery. Expertise is also available in remote sensing; mapping (including GIS);
surface and ground water contamination and contaminant transport; oil, gas, and mineral development; and oil spill response research and development.

**7210.13 Department of Justice (DOJ)**

DOJ, in coordination with legal counsel of the federal agencies and departments involved, provides expert advice on legal questions arising during an incident. DOJ also represents the federal government in litigation relating to hazardous substance, oil, chemical, or biological releases. Through the Federal Bureau of Investigation, DOJ is the lead federal agency for crisis management during a terrorist incident. The Bureau of Alcohol, Tobacco, Firearms and Explosives may provide law enforcement support with experts in the field of fire and explosive investigations.

**7210.14 Department of Energy (DOE)**

DOE’s National Nuclear Security Administration is ready to respond to any type of nuclear/radiological accident or incident anywhere in the world, including monitoring, assessment, and working with local, state, and federal agencies and officials to resolve the situation. In the event of an energy crisis or natural disaster, DOE, in coordination with the energy industry, helps identify problems, assesses energy system damage, and assesses energy supply, demand, and requirements to restore the damaged energy systems.

**7210.15 Department of Health and Human Services (HHS)**

HHS’s Centers for Disease Control and Prevention (CDC) and National Institute of Environmental Health Sciences provide worker health and safety training, while the Agency for Toxic Substances and Disease Registry (ATSDR) has established a surveillance system to evaluate the human health exposures to hazardous substances in emergencies. During an incident, CDC and ATSDR also advise the FOSC on human health threats and the prevention or mitigation of exposure to hazardous substances.

**7210.16 Department of Transportation (DOT)**

DOT’s Research and Special Programs Administration (RSPA) administers national transportation safety programs for hazardous materials and oil by all modes of transportation and pipelines. RSPA provides technical assistance to the planning and response communities, including publication of the DOT Emergency Response Guidebook.

**7211 Nuclear Regulatory Commission**

The Nuclear Regulatory Commission regulates civilian nuclear facilities and nuclear materials. The Nuclear Regulatory Commission is the lead federal agency during radiological events involving licensees, and provides expertise during other radiological incidents.

**7212 Environmental Protection Agency (EPA)**

EPA coordinates preparedness and response for hazardous substance releases and oil discharges in the inland zone. EPA’s Environmental Response Team is a group of highly trained scientists, engineers, and responders who provide training and technical skills in multimedia sampling and analysis, hazard assessment, and clean-up techniques.
7212.1 Incident Command System/Unified Command (ICS/UC)

The NRS response concepts show that when federal assistance is required, the ICS/UC structure is established. An ICS led by a UC is a key element of the NCP framework for response management. Local responders (e.g., fire) will typically be the first responders to arrive at the scene of an incident (more than 95 percent of hazardous materials are handled by local responders). Most local responders are familiar with ICS and are likely to establish one immediately. As federal, state, and private party responders arrive on-scene, responders would integrate into the ICS organization and establish a UC to direct and coordinate the expanded organization. The ICS/UC approach brings together the functions of the federal government, state, and local government, and the party responsible for an incident to achieve an effective and efficient response.

The Incident Command System (ICS) is used to manage the response to an emergency incident or a non-emergency event. ICS categorizes response into functional components to be performed by the agency with responsibility for the response. When more than one entity has response authority, the coordinated response structure is managed using a Unified Command System (UCS). The basic ICS/UCS operating guideline is that the Incident Commander/Unified Command is responsible for all functions until authority for individual functional components is delegated to another person or agency.

The organization of the ICS/UCS is built around five major management activities. These include the following activities:

- **Command** - sets objectives and priorities; has overall responsibility at the incident or event.
- **Operations** - conducts tactical operations to carry out the plan and develops the tactical objectives, organization, and directs all resources.
- **Planning** - develops the action plan to accomplish the objectives, collects and evaluates information, and maintains resource status.
- **Logistics** - provides support to meet incident needs, as well as resources and all other services needed to support the incident.
- **Finance/Administration** - monitors costs related to the incident and provides accounting, procurement, time recording, and cost analysis.

The ICS/UCS is designed to work equally well for both small and large situations and can expand or contract to meet the needs of the incident. For example, during small incidents, the Incident Commander may directly assign tactical resources and oversee all operations. Large incidents, however, usually require that the Incident Commander/Unified Command delegate responsibility for each major activity to separate sections within the organization. Further, each of the primary ICS/UCS sections may be sub-divided as needed.

Depending on the type of incident and the authorities under which a response is coordinated, the Incident Commander could be any of the following individuals.

- Under a National Oil and Hazardous Substances Pollution Contingency Plan (NCP) response – A U.S. Environmental Protection Agency (EPA), U.S. Coast Guard (USCG), or other federal On-Scene Coordinator (OSC) serves as the Incident Commander.
- Under a Federal Response Plan (FRP) response – The Federal Coordinating Officer (FCO) serves as the Incident Commander.
- Under a response to a terrorist incident – The Federal Bureau of Investigation (FBI) Officer-in-charge will serve as the Incident Commander.
- Under the Federal Radiological Emergency Preparedness Plan (FRERP) – The On-Scene Commander serves as the Incident Commander.

When more than one entity has response authority, the Unified Command may include federal, state, local, and responsible party representatives.
* There is one Incident Commander within the UC. Consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300), the Incident Commander may be from any UC organization. Both the Incident Commander and membership of the UC may change based on the phase of the response (firefighting, residual cleanup) and the Agencies’ primary responsibilities, capabilities, and available resources.

**7212.2 Responding to a Hazardous Substance Incident**

It is important to note that the majority of hazardous substance releases, like oil spills, are small events that will not and should not result in a response beyond that of an initial or reinforced response organization.

A hazardous substance/materials release may bring together a greater number and wider variety of agencies than any other single incident. It is assumed that all hazardous materials incidents will be managed under UC principles because in virtually all cases, fire, law enforcement, and public health agencies will have some statutory functional responsibility for IC/Command Control and mitigation.

Depending on incident factors, several other agencies will respond to a hazardous materials incident. The best method of ensuring effective information flow and coordination between the responding agencies at the scene of a multi-agency incident is to establish an Incident Command Post (ICP) and the use of a UC. Each key response agency should provide a representative to remain at the ICP who will have the authority to speak for and commit agency resources.
### 7212.3 Response Management System

**General.** It is envisioned that during a large or multiple hazardous substance incident(s) that a Regional Incident Command (RIC) or a National Incident Command (NIC) structure may have to be implemented to oversee the management of the event specific to strategic assistance and resolving response resources issues. The organizational structures of Incident Commands are defined by the National Incident Management System (NIMS), and the National Response Framework (NRF).

### 7212.4 Regional and National Incident Commands

In situations where there is a need for senior executive-level response coordination, command and control of an incident may include the use of a Regional or National Incident Command (RIC/NIC). The purpose of a RIC/NIC organization is to oversee the overall management of the incident(s), focusing primarily on strategic assistance and direction and resolving competition for scarce response resources. This organization does not supplant the IC(s), but supports and provides strategic direction. Execution of tactical operations and coordination remains the responsibility of the IC(s)/UC(s).

**Regional Incident Command.** A RIC is an organization activated by the District Commander to ensure coordination for Command, Planning, and Logistical matters. The need for a RIC may arise when there are multiple on-scene ICs, multiple Coast Guard ICs and/or when there is heavy demand for Coast Guard resources from other agencies such as the Federal Emergency Management Agency (FEMA). The RIC will determine which critical resources are sent to which incident and determine priorities for their assignment.

**National Incident Command.** A NIC is an organization that is functionally similar to the RIC and is used if the incident requires the direct involvement of the most senior Coast Guard Operational Commander(s).

**Determination to Activate a Regional or National Incident Command.** An incident(s) of significant magnitude, complexity, or operational intensity may benefit from the activation of a RIC/NIC. Factors to consider when deciding to activate a RIC or NIC include, but are not limited to:

- Complex incident overwhelming local and regional assets;
- Overlapping districts or regions;
- An incident that crosses international borders;
- The existence of, or the potential for, a high level of national political and media interest; or,
- Significant threat or impact to the public health and welfare, natural environment, property, or economy over a broad geographic area.

### 7212.5 HAZMAT Incident / Unified Command Objectives

**Primary Unified Command Objectives:**

- Health and Safety of Responders
- Victim Rescue
- Community Safety and Evacuation (if necessary)
- Securing the Source of the Contaminant
- Protection of Property
• Environmental Protection and Response

Other Possible Unified Command Objectives:
• Threat Assessment
• Lead Federal Agency Advisory Requirements
• Agent Identification
• Hazard Detection and Reduction
• Environmental Monitoring
• Sample and Forensic Evidence Collection/Analysis
• Identification of Contaminants
• Feasibility Assessment and Clean-Up
• On-Site Safety
• Protection, Prevention, Decontamination, and Restoration Activities

7213 Safety
[RESERVED for Additional Area Committee Development]

7213.1 Guidance for Responders Supporting the Unified Command

Responders should not be in the Hot or Warm Zone without the appropriate level of protection. Responders should always enter a suspected contaminated area with the level of protection that will ensure their survival. At the same time, they would not want to over-burden themselves with protective equipment that is nice to have, but may hinder their mission because of the heat stress or due to its weight or bulk. Therefore, they will have to know what kind of agent they are dealing in order to make knowledgeable decisions as to the level of protection required to ensure they do not become a victim, either as a result of the chemical agent or from exhaustion.

Consequently, initial entry into the Hot Zone should be in Level A, with a possibility of downgrading to a lower level of protection after the agent is identified, the concentration of the agent is determined to be below IDLH, and/or the Incident Commander authorizes a lower level of protection based on risk assessment.

A response team requires maximum respiratory protection when entering atmospheres containing unknown substances, or entering atmospheres containing known substances in unknown concentrations. If you are unsure of the agent employed, eliminate any risk by entering the area in Level A, as required by OSHA.

In addition, unless the responder is certain they are not dealing with a hazardous substance that may be absorbed (i.e., hazwaste, etc.), they need to protect their skin from chemical liquids and aerosols.

Liquid hazardous substances can be transferred to a responder in numerous ways, including:

(1) Helping victims,
(2) Helping other responders,
(4) Moving contaminated debris,
(5) Handling contaminated objects,
(6) Walking through contaminants, and
(7) Over-spray from victim decontamination operations (e.g., while hosing down victims).

7213.2 Safe Distance/Avoid Contact

Most initial responders (exceptions would be firefighters, HAZMAT teams, NSF, etc.), are trained at the awareness level and most likely have little, or no, personal protective equipment. Their best protection at this level is contamination avoidance. Although “safe distances” will be set by the Incident Commander based on incident specific information and dynamics, the following are some general guidelines:

- **Move upwind**: Move upwind from the release.
- **Move upgrade**: Move upgrade from the release for chemical agents. Most of the chemical agents are heavier than air and will move downgrade, especially in still air. Also, any runoff from decontamination operations will flow downgrade.
- **Avoid contact with contaminated people and things**: Without proper protective clothing, you should avoid contact with contaminated people and things.

7213.3 Levels of Protection

Factors to be considered in selecting the proper level of protection include the potential routes of entry for the chemical(s), the degree of contact, and the specific task assigned to the user. Activities can also be undertaken to determine which level of protection should be chosen. The EPA and NIOSH recommend that initial entry into unknown environments or into a confined space that has not been chemically characterized be conducted wearing at least Level B, if not Level A, protection.

7213.4 Routes of Entry

PPE is designed to provide emergency medical personnel with protection from hazardous materials that can affect the body by one of three primary routes of entry: inhalation, ingestion, and direct contact.

*Inhalation* occurs when emergency personnel breathe in chemical fumes or vapors. Respirators are designed to protect the wearer from contamination by inhalation but they must be worn properly and fit-tested frequently to ensure continued protection.

*Ingestion* usually is the result of a health care provider transferring hazardous materials from his hand or clothing to his mouth. This can occur unwittingly when an individual wipes his mouth with his hand or sleeve, eats, drinks, or smokes tobacco.

*Direct contact* refers to chemical contact with the skin or eye. Garments protect the skin, and full-face respirators protect against ingestion and direct eye contact. Mucous membranes in the mouth, nose, throat, inner ear, and respiratory system may be affected by more than one of these routes of entry. Many hazardous materials adhere to and assimilate with the moist environment provided by these membranes, become trapped or lodged in the mucus, and are subsequently absorbed or ingested.
7213.5 Chemical Protective Clothing (CPC)

Protective clothing is designed to prevent direct contact of a chemical contaminant with the skin or body of the user. There is, however, no one single material that will afford protection against all substances. As a result, multi-layered garments may be employed in specific situations despite their negative impact on dexterity and agility. CPC is designed to afford the wearer a known degree of protection from a known type, a known concentration, and a known length of exposure to a hazardous material, but only if it is properly fitted and worn correctly. Improperly used equipment can expose the wearer to danger. Another factor to keep in mind when selecting CPC is that most protective clothing is designed to be impermeable to moisture, thus limiting the transfer of heat from the body through natural evaporation. This is a particularly important factor in hot environments or for strenuous tasks since such garments can increase the likelihood of heat-related injuries. Research is now underway to develop lightweight suits that are breathable but still protective against a wide range of chemicals. Cooling vests are sometimes used in warm weather situations to keep the body temperature normal, but with mixed results.

Essential to any protective ensemble are chemical resistant boots with steel toe and shank. Chemical resistant inner and outer-layered gloves must also be worn. Compatibility charts should be consulted to determine the appropriate type of boot and gloves to use, since no one material presently provides protection against all known chemicals. Wearing multiple layers of gloves impairs dexterity and makes performing basic aspects of patient assessment (e.g., checking breathing, taking a pulse) difficult without constant practice.

The effectiveness of CPC can be reduced by three actions: chemical degradation, permeation, and penetration.

Chemical degradation occurs when the characteristics of the material in use are altered through contact with chemical substances or aging. Examples of degradation include cracking and brittleness, and other changes in the structural characteristics of the garment. Degradation can also result in an increased permeation rate through the garment.

Permeation is the process by which chemical compounds cross the protective barrier of CPC because of passive diffusion. The rate at which a compound permeates CPC is dependent on factors such as the chemical properties of the compound, the nature of the protective barrier in the CPC, and the concentration of the chemical on the surface of the protective material. Most CPC manufacturers provide charts on the breakthrough time, the time it takes for a chemical to permeate the material of a protective suit for a wide range of chemical compounds.

Penetration occurs when there is an opening or a puncture in the protective material. These openings can include unsealed seams, buttonholes, and zippers. Often such openings are the result of faulty manufacture or problems with the inherent design of the suit.

Protective clothing is available in a wide assortment of forms, ranging from fully-encapsulated body suits to gloves, hard hats, earplugs, and boot covers. CPC comes in a variety of materials, offering a range of protection against a number of chemicals. Emergency medical personnel must evaluate the properties of the chemical versus the properties of the protective material. Selection of the appropriate CPC will depend on the specific chemical(s) involved, and on the specific tasks to be performed.

7213.6 Respiratory Protection

Substantial information is available for the correct selection, training, and use of respirators. The correct respirator must be employed for the specific hazard in question. Material Safety Data Sheets (if available) often specify the type of respirator that will protect users from risks. In addition, manufacturers suggest the types of hazards against which their respirators can offer protection.
OSHA has set mandatory legal minimum requirements (29 CFR (1910.134)) for respiratory protection.

In addition, NIOSH has established comprehensive requirements for the certification of respiratory protection equipment.

**Personnel must be fit-tested for use of all respirators.** Even a small space between the respirator and you could permit exposure to a hazardous substance(s) by allowing in contaminated air. Anyone attempting to wear any type of respirator must be trained and drilled in its proper use. Furthermore, equipment must be inspected and checked for serviceability on a routine basis.

There are two basic types of respirators: air-purifying and atmosphere-supplying. Atmosphere supplying respirators include self-contained breathing apparatus (SCBA) and supplied-air respirators (SAR).

### 7213.7 Personal Protective Equipment (PPE) Response Level Definitions

**Level A:** This is the highest level of protection afforded by personal protective clothing. It is a fully encapsulating suit with SCBA or a tethered air supply. It provides maximum protection from liquids and vapors. The drawbacks to this level are that it is very difficult to work in, limits communications, and is hot and heavy. The greatest causes of injury to responders in Level A are slips, trips, and falls. Level A protection must be worn when entering an environment where the type of agent and concentration are unknown.

**Level B:** This level of protection is similar to Level A, but is not fully encapsulating. It provides maximum respiratory protection, through SCBA or tethered air, and splash protection, but does not provide the level of vapor and skin protection provided by Level A.

**Level C:** This level of protection consists of a respirator and a protective outer garment. Although the outer garment provides some splash protection, it does not provide vapor protection. Level C should be worn in the Warm Zone if vapor concentrations are below IDLH.

**Level D:** This level consists of normal work clothing and should only be worn in the Cold Zone. It affords no protection from any of the possible WMD agents.

**PPE:** All personnel who come in contact, or have the potential to come in contact, with the exposed casualties must wear protective clothing and respiratory protection.

OSHA Level B chemical protective clothing can provide adequate protection for responders operating the decontamination stations in the warm zone.

If available, wear rubber gloves, but not latex (butyl or neoprene are acceptable).

**Minimize contact:** Minimize direct contact with the casualties and avoid any liquid contamination.

**Monitor self and buddy:** Ensure all responders are aware of the signs and symptoms of exposure. Monitor yourself and your buddy for these, both during and after decontamination.

**Consider yourself contaminated:** From the moment you enter the decontamination area or come into contact with a casualty, consider yourself contaminated.
7213.8 Actions to Protect Others

**Site Security:** Within the limitations of their PPE, responders need to establish site security early. Control ingress to and egress from the site. Controlling the site will help to contain and avoid the spread of contamination.

**Communicate the Hazard Warning to Others:** Include involvement of 911 dispatchers in the communications chain so that they can tell other responders about the hazards. Inform dispatch of local wind direction, ingress routes, staging areas, and other information that can be passed to follow-on responding units.

**Health and Safety Plan.** The ICS Compatible Site Safety and Health Plan is designed for safety and health personnel that use the Incident Command System (ICS). It is compatible with ICS and is intended to meet the requirements of the Hazardous Waste Operations and Emergency Response regulation (Title 29, Code of Federal Regulations, 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 chemical spills, the plan can be used for all hazard situations including WMD response. Refer to the generic ICS formatted Site Safety Plan.

7213.9 Response Personnel Safety

Need to address:

- Standard operating procedure for entering and leaving sites
- Accountability for personnel entering and leaving sites, including verification of appropriate training (e.g., HAZWOPER 40-hour or 24-hour training)
- Decontamination procedures
- Recommended safety and health equipment
- Personal safety precautions

Care must be taken to choose equipment that protects workers from the hazard present at the site without unnecessarily restricting the capacities of workers. Although the emphasis in equipment choices is commonly focused on protecting the worker from the risks presented by the hazardous material, impaired vision, restricted movements, or excessive heat can put workers at equal risk. After taking these factors into account, the planner should list the equipment appropriate to various degrees of hazard using the EPA Levels of Protection (A, B, C, and D). The list should include: the type of respirator (e.g., self-contained breathing apparatus, supplied air respirator, or air purifying respirator) if needed; the type of clothing that must be worn; and the equipment needed to protect the head, eyes, face, ears, hands, arms, and feet. This list can then be used as a base reference for emergency response. The specific equipment used at a given site will vary according to the hazard. In addition, the equipment list should be reevaluated and updated as more information about the site is gathered to ensure that the appropriate equipment is being used. Responders should receive ongoing training in the use of safety equipment.

7214 Public Affairs / Joint Information Center

**General.** Under the ICS/UCS, an Information Officer (IO) is one of the key staff supporting the command structure. The IO represents and advises the Incident Commander/Unified Command on all public information matters relating to the incident response. The Joint Information Center (JIC) and IO have the responsibility to conduct crisis communications during emergency responses and non-emergency events. The JIC can be adapted for use in a diverse range of responses likely to be performed by stakeholder agencies and organizations, ranging from a large multiple-agency, all-hazards response to a small single agency, single-hazard response.
In carrying out their responsibilities, the IO and his/her JIC staff may interact with personnel at all levels of the ICS/UCS structure, including the Incident Command, selected units and branches within all Sections, the Safety Officer, and the Liaison Officer.

**Joint Information Center (JIC).** A JIC is a collocated group of representatives from agencies and organizations involved in an event that are designated to handle public information needs. The JIC structure is designed to work equally well for large or small situations and can expand or contract to meet the needs of the incident. Under the ICS/UCS, the JIC is led by the Information Officer (IO) who has three primary responsibilities:

- To gather incident data. This involves understanding how an ICS/UCS operates and developing an effective method for obtaining up-to-date information from appropriate ICS/UCS Sections.

- To analyze public perceptions of the response. This involves employing techniques for obtaining community feedback to provide response agencies with insight into community information needs, their expectations for the role to be played by the response agencies, and the lessons to be learned from specific response efforts.

- To inform the public. That is, to serve as the source of accurate and comprehensive information about the incident and the response to a specific set of audiences.

When multiple public or private agencies and organizations come together to respond to an emergency or manage an event, efficient information flow is critical to effectively carrying out these IO responsibilities and meeting the expectations of various publics. A JIC is a centralized “communication hub” that serves to achieve that information flow.

Establishing a JIC, developing processes and procedures, and training staff on how to operate a JIC effectively allow response organizations to be more proactive in responding to the information needs of responders, the public, federal, state and local governments, foreign governments, and industry.

Because of the critical nature of providing emergency information to disaster victims, time spent getting organized rather than responding at the time of an event can lead to confusion and a loss of public confidence. Different agencies (including state, local, and other entities) involved in a response can work in a cohesive manner, enabling them to “speak with one voice.” By maintaining a centralized communication facility, resources can be better managed and duplication of effort is minimized. Finally, the use of a JIC allows for tracking and maintaining records and information more accurately—therefore, improving the ability to conduct post-incident assessments that can be used to improve crisis communication and general response activities during future incidents.

**Establishing a JIC and its Flexibility.** The JIC structure is most useful when multiple agencies and organizations come together to respond to an emergency or manage an event and need to provide coordinated, timely, accurate information to the public and other stakeholders.

Federal response to small localized incidents may be conducted under federal authorities, such as the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA or Superfund), the Oil Pollution Act (OPA), or the Clean Water Act (CWA). These responses are carried out consistent with the NCP, which provides for the federal government to take action to reduce and eliminate risks to life, health, and the environment as a result of any release of a hazardous substance above a reportable quantity. Most of these situations require the involvement of only one or two federal organizations working with state and local agencies, but additional assistance is available from other agencies through the National Response Team (NRT) and its Regional Response Teams (RRTs).

The JIC structure is designed to accommodate the diverse range of responses likely to be performed by NRT member agencies, ranging from a large multiple agency, all-hazards response to a small single agency, single-hazard response. The JIC structure is equally adaptable for use in a federal response under the FRP, the FRERP, or WMD.
plans. The structure can grow or shrink depending on the unique requirements of a specific response and should be customized for each response. This adaptability encompasses staffing, organizational structure, facilities, hours of operation, resource and logistical requirements, and products and services.

The JIC organizational structure is based on functions that generally must be performed whether a person is handling a routine emergency or managing communications for a major response to a disaster. Following are options for organizing a JIC for small, medium, and large incidents. The focus for the small and medium incidents is on functions since as few as one person can be involved in carrying out all the activities for a particular function in the JIC. However for large incidents, functional roles may be carried out by multiple staff to ensure efficient operations.

**Objectives of a JIC.** The objectives of a JIC are to fulfill all responsibilities of the Information Officer, which include:

- Developing, recommending, and executing public information plans and strategies on behalf of the Unified Command (UC);
- Gaining and maintaining public trust and confidence;
- Being the first and best source of information;
- Gathering information about the crisis;
- Ensuring the timely and coordinated release of accurate information to the public by providing a single release point of information;
- Capturing images of the crisis in video and photos that can be used by the response organization as well as the media;
- Monitoring and measuring public perception of the incident;
- Informing the UC of public reaction, attitude, and needs;
- Ensuring the various response agencies' information personnel work together to minimize conflict;
- Advising the UC concerning public affairs issues that could impact the response;
- Facilitating control of rumors; and
- Arranging and moderating joint multi-agency/organization press conferences.

**JIC Positions.** The Information Officer supports the information needs of the UC; establishes, maintains and deactivates the JIC; and represents and advises the Incident Commander. Depending on the public information needs of the response, the IO may perform all public information-related functions or these functions may be subdivided among other positions within the JIC.

### 7215 JIC Organization Charts

**Initial Response**

![Initial Information Officer](chart)

- Initial Information Officer
  - Data Gathering Assistant
  - Inquiries Assistant
  - New Release Assistant
Initial Response -First 24 Hours. Immediately after an incident occurs, there is a high demand for information. Whether the incident is large or small, a natural disaster or accident, the media and public, as well as responders, require accurate and timely information. The responsibility of disseminating updated information is assigned to the Information Officer immediately after the onset of the incident. The following checklist includes the tasks that the Information Officer must accomplish prior to and in preparation for the establishment of a JIC.

<table>
<thead>
<tr>
<th>STEP</th>
<th>ACTION</th>
</tr>
</thead>
</table>
| 1    | Select a location for the JIC. The location should meet the following criteria:  
• Enough space for 12 people to work  
• A minimum of eight AC outlets or power strips approved within fire codes  
• Access to a copier  
• Located close to the Command Center |
| 2    | Establish a dedicated phone line for inquiries from the media |
| 3    | Gather basic facts about the crisis – who, what, when, and where |
| 4    | Use this information to answer inquiries. |
| 5    | Assign three people to help you and give them the following tasks: |

Inquiries Assistant – will respond to telephone requests for information

<p>| 1    | Use the dedicated phone line to answer calls from the media. |
| 2    | Record names and phone numbers of callers, time of calls, questions, and responses |
| 3    | Use approved news releases and information from the Data Gathering Asst. to answer media |</p>
<table>
<thead>
<tr>
<th>STEP</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>If a question is asked that you cannot answer, write down the questions, who asked it, and the phone number so you can get the answer and get back to the caller.</td>
</tr>
</tbody>
</table>

**Data Gathering Assistant – will gather incident data**

| 1    | Gather information about the crisis |
| 2    | Provide this information to the assistants handling inquiries and written news releases |

**News Release Assistant – will prepare written news release**

| 1    | Assemble the facts in two or three sentences that answer  |
|      | • Who  |
|      | • What  |
|      | • How  |
|      | • Why  |
|      | • Where  |
|      | • When  |
| 2    | List the remaining facts and information in bullet form.  |

**NOTE:** The release should be only one page in length. If there is a need for additional information about specific topics than a separate sheet should be done.

| 3    | Spell check and edit the release and give it to the IO for approval. |
| 4    | Give approved release to Inquiries Asst. and Incident Commander |
| 5    | Fax to media and other requestors |
| 6    | Call for more assistance, preferably people trained in JIC and ICS operations |
| 7    | Complete forms and reports required of the assigned position and send material through supervisor to Support Asst. |
7216 Operations

This Section is organized as follows:
7216.1 Detection and Surveillance

7216.1 Detection and Surveillance

When dispatched to the scene of an incident, emergency response personnel may not be aware that the situation involves hazardous materials. As a result, emergency personnel should always be alert to the possibility that they may be dealing with a chemically contaminated location or individual. But as a routine precaution, the involvement of hazardous materials should be considered a possibility on every call. The manual Recognizing and Identifying Hazardous Materials (produced by the National Fire Academy and the National Emergency Training Center) states that there are six primary clues that may signify the presence of hazardous materials. These clues are included below to facilitate and expedite the prompt and correct identification of any hazardous materials at the scene of an incident. Mobilization protocols should seek to obtain information about these clues and relay the information to field personnel as soon as possible. Certain combinations of patient symptoms such as nausea, dizziness, burning eyes or skin, or cyanosis should also suggest the presence of hazardous materials.

The six principle clues to hazardous materials incidents are:

- **Occupancy and Location.** Community preplanning should identify the specific sites that contain hazardous materials. In addition, emergency personnel should be alert to the obvious locations in their communities that use and/or store hazardous materials (e.g., laboratories, factories, farm and paint supply outlets, construction sites). The Department of Labor’s Material Safety Data Sheets (MSDSs) should also be available, especially for any particularly dangerous chemicals kept on site. It should be kept in mind, however, that these data sheets may have incomplete information and that the medical information provided is generally at a basic first aid level.

- **Container Shape.** Department of Transportation (DOT) regulations delineate container specifications for the transport of hazardous materials. There are three categories of packaging: stationary bulk storage containers at fixed facilities that come in a variety of sizes and shapes; bulk transport vehicles, such as rail and truck tank cars, that vary in shape depending upon the cargo; and labeled fiberboard boxes, drums, or cylinders for smaller quantities of hazardous materials. The shape and configuration of the container can often be a useful clue to the presence of hazardous materials.

- **Markings/Colors.** Certain transportation vehicles must use DOT markings, including identification (ID) numbers. ID numbers, located on both ends and both sides, are required on all cargo tanks, portable tanks, rail tank cars, and other packages that carry hazardous materials. Railcars may have the names of certain substances stenciled on the side of the car. A marking scheme designed by the National Fire Protection Association (NFPA 704M System) identifies hazard characteristics of materials at terminals and industrial sites, but does not provide product specific information. This system uses a diamond divided into four quadrants. Each quadrant represents a different characteristic: the left, blue section refers to health; the top, red quarter pertains to flammability; the right, yellow area is for reactivity; and the bottom, white quadrant highlights special information (e.g., W indicates dangerous when wet, Oxy stands for oxidizer). A number from zero through four in each quadrant indicates the relative risk of the hazard, with zero representing the minimum risk. This system does not indicate what the product is, the quantity, or its exact location. In addition, it does not reveal the compound s reactivity with other chemicals. The military also uses distinctly shaped markings and signs to designate certain hazards. These markings may be found on vehicles, on the products themselves, or on shipping papers.
• **Placards/Labels.** These convey information through use of colors, symbols, Hazard Communication Standards, American National Standard Institute (ANSI) Standards for Precautionary Labeling of Hazardous Industrial Chemicals, United Nations Hazard Class Numbers, and either hazard class wording or four-digit identification numbers. Placards are used when hazardous materials are being stored in bulk (usually over 1,001 lb), such as in cargo tanks. Labels designate hazardous materials kept in smaller packages. Caution must be exercised, however, because the container or vehicle holding a hazardous material may be improperly labeled or recorded, or it may not have any exterior warning.

• **Shipping Papers.** Shipping papers can clarify what is labeled as dangerous on placards. They should provide the shipping name, hazard class, ID number, and quantity, and may indicate whether the material is waste or poison. Shipping papers, which must accompany all hazardous material shipments, are now required to list a 24-hour emergency information telephone number. The location where the shipping papers are stored can be problematical; often they are found in close proximity to the hazardous material(s) or in other locations not easily accessible during an emergency. Shipping papers should remain at the incident scene for use by all response personnel.

• **Senses.** Odor, vapor clouds, dead animals or fish, fire, and skin or eye irritation can signal the presence of hazardous materials. Generally, if one detects an odor of hazardous materials, it should be assumed that exposure has occurred and the individual is still in the danger area, although some chemicals have a detectable odor at levels below their toxic concentrations. Some chemicals, however, can impair an individual s sense of smell (e.g., hydrogen sulfide), and others have no odor, color, or taste at all (e.g., carbon monoxide). Binoculars are helpful to ascertain visible information from a safe distance.

### 7217 Notifications and Reporting Requirements

This section is organized as follows:

- **7217.1 Notifications**
- **7217.2 Reporting Requirements**
- **7217.3 Public Warning Systems and Emergency Public Notification**

#### 7217.1 Notifications

See Section 9100 Emergency Notification of Northeast and Eastern Central Florida ACP
7217.2 Reporting Requirements

Address within existing forms and reports the following initial and ongoing information gleaned during response activities.

<table>
<thead>
<tr>
<th>Completed?</th>
<th>Mark “X”</th>
<th>Information/Data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Date and time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Name of person receiving call</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Name and telephone number of on-scene contact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Location</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nearby populations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nature (e.g., leak, explosion, spill, fire, derailment)</td>
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<tr>
<td></td>
<td></td>
<td>Time of release</td>
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<tr>
<td></td>
<td></td>
<td>Possible health effects/medical emergency information</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of dead or injured: Where dead/injured are taken</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rescue accomplished? Rescue needed?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Name of material(s) released: if known</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Manifest/shipping invoice/billing label</td>
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<tr>
<td></td>
<td></td>
<td>• SSTC number</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• CAS number</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• MSDS available?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Shipper/manufacturer identification</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Container type (e.g., truck, rail car, pipeline, drum, tank vessel, etc.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Railcar/truck 4-digit identification numbers</td>
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<tr>
<td></td>
<td></td>
<td>• Placard/label information</td>
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<tr>
<td></td>
<td></td>
<td>Characteristics of material (e.g., color, smell, physical effects), only if readily detectable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Present physical state of the material (i.e., gas, liquid, solid)</td>
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<tr>
<td></td>
<td></td>
<td>Total amount of material that may be released</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other hazardous materials in the area</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Amount of material released so far/duration of release</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Whether significant amounts of the material appear to entering the atmosphere, nearby water, storm drains, or soil</td>
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<td></td>
<td></td>
<td>Whether the release was in a confined space</td>
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<tr>
<td></td>
<td></td>
<td>Direction, height, color, odor of any vapor clouds or plumes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Weather conditions (wind direction, speed, inversion)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Local terrain conditions significant to dispersion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Personnel at the scene</td>
</tr>
</tbody>
</table>

7217.3 Public Warning Systems and Emergency Public Notification

See Section 9100 Emergency Notification of Northeast and Eastern Central Florida ACP.

Duval County’s Emergency Operations Center has a telephone system that can automatically telephone the community within a particular area and deliver a recorded message.
7218 Initial Actions

There are hundreds of thousands of different types of materials, each posing unique threats to life, the environment, and property and each behaving differently under varying release and environmental conditions. For this reason, one of the most important functions of the Planning Section to obtain information about a chemical’s behavior, potential health effects, and possible response alternatives.

In some cases, it may be very difficult to identify the hazardous substances that are involved in an incident. For example, in the case of abandoned drums, it may be difficult to determine the substances involved and thus the risks associated with them. In other cases, it might be relatively easy. For example, if there is a train derailment or a transportation accident, hazardous waste manifests should be able to provide responders with the information needed to begin assessing the risks associated with the site.

Further, in the case of hazardous substance spills, until the released material is identified and the levels of potential exposure determined, a response strategy cannot be safely implemented. The situation must be approached with extreme caution and often a response must be delayed until safe levels of exposure are determined and a properly equipped response team can be assembled. Decisions regarding possible evacuations must also be made during the period of substance identification and risk determination.

During the initial response phase, some basic actions may be implemented depending upon the available information and resources. These actions can include, but are not limited to:
- rescue of victims
- controlling access to the area
- identifying the hazards
- controlling and/or stopping further releases
- sampling of water/soil/product
- containment of the already released product
- implementation of countermeasures
- establishing proper decontamination procedures

7219 Follow-up Actions

This section describes the typical Follow-up Actions once a response has been initiated:
7219.1 Enforcement
7219.2 Cost Recovery
7219.3 Environmental Monitoring

7219.1 Enforcement

OSHA shall be contacted for air sampling, exposure hazards, enforcement of Federal Regulations for industry (CFR 29).

7219.2 Cost Recovery

Providing logistical and resource support to response agencies during a disaster is a critical component of emergency management. Supplies, equipment, manpower and additional resources will have to acquired and distributed. Normal purchasing policies and day-to-day operating procedures for procurement of personnel, material and equipment may also be disrupted. Local government is responsible for ensuring that all necessary resources are available to local agencies either through the use of local assets or by obtaining assistance from state and other agencies through the Florida Mutual Aid Agreement or other sources and procedures.
Resources expended, either in the form of equipment, materials or work hours, must also be accounted for in order to assess a disaster's impact on the local government and the community. Complete and accurate record keeping will also require extraordinary measures due to the disruptions a disaster can have on the normal workings of an organization, especially a local government that is totally engrossed in responding to the needs of its citizens threatened by calamity.

### 7219.3 Environmental Monitoring

[RESERVED for Area Committee Development]

### 7220 Obtaining Chemical Information

The aim of emergency personnel should be to make a chemical-specific identification while exercising caution to prevent exposure to any chemicals. Identifying the hazardous material and obtaining information on its physical characteristics and toxicity are vital steps to the responder's safety and effective management of the hazardous materials incident. Since each compound has its own unique set of physical and toxicological properties, early and accurate identification of the hazardous material(s) involved allows emergency personnel to initiate appropriate management steps at the scene.

Many resources are available to provide information concerning response to and planning for hazardous materials incidents. There is also a vast array of telephone and computer-based information sources concerning hazardous materials. They can help by describing the toxic effects of a chemical, its relative potency, and the potential for secondary contamination. They may also recommend decontamination procedures, clinical management strategies, and advice on the adequacy of specific types of protective gear.

See Appendix 9200, Section 9242.1, Obtaining Chemical Information.

### 7230 Site Evaluation, Control and Management

This section is organized as follows:

- **7230.1 Site Control**
- **7230.2 RESERVED**

#### 7230.1 Site Control

Hazardous materials incidents often attract large numbers of people and equipment. This complicates the task of minimizing risks to humans, property, and the environment.

An Incident Command System (ICS) coordinates management of facilities, equipment, personnel, and communications during a hazardous materials incident. An Incident Commander (IC) is responsible for control of the scene and for keeping contaminants on site. This includes delineating work zones, establishing levels of protection, and implementing decontamination activities.

To enhance control at the site of a chemical incident, rules regarding access to the site must be implemented. Inactive individuals and equipment should be kept at a safe distance from the area of possible contamination, and public access from all directions must be restricted promptly. In addition, media access should be limited to an area established as the Public Information Sector by a designated Public Information Officer. The Incident Commander must approve all access to the incident site and a Public Information Officer must escort the press personnel who enter the site.
Work Zones. NIOSH, OSHA, USCG, and EPA recommend dividing the incident area into three zones, establishing access control points, and delineating a contamination reduction corridor. The following diagram illustrates the recommended zones. The Exclusion (Hot) Zone should encompass all known or suspected hazardous materials contamination. The respective radius of the Contamination Reduction (Warm) Zone is determined by the length of the decontamination corridor, which contains all of the needed decontamination stations. The Support (Cold) Zone should be clean, meaning it is free of all hazardous materials contamination, including discarded protective clothing and respiratory equipment. The command post and staging areas for necessary support equipment should be located in the Support Area, upwind and uphill of the Exclusion Zone. Personnel in charge of each sector should be easily recognized (e.g., with a command vest). Equipment that may eventually be needed should be kept in staging areas beyond the crowd control line. Access to the different zones should be tightly controlled and limited to as few people as possible. Communication between work areas should be face-to-face whenever possible. Use of radios or other electronic devices (e.g., bullhorns) may be restricted depending on the hazards involved.

NIOSH/OSHA/USCG/EPA Recommended Zones

7230 Source Damage Assessment

The method for assessing damage of the source of the incident will be dependent on the hazardous substance involved. The HAZMAT team(s) involved will need to determine the appropriate level of PPE and/or other equipment required to safely inspect the source.
7240 Evacuation, Shelters, and Shelter-in-Place

This section is organized as follows:
7240.1 Evacuation Procedures
7240.2 Other Public Protection Strategies

7240.1 Evacuation Procedures

- Title of person and alternate(s) who can order/recommend an evacuation
- Vulnerable zones where evacuation could be necessary and a method for notifying these places
- Provisions for a precautionary evacuation
- Methods for controlling traffic flow and providing alternate traffic routes
- Locations of shelters and other provisions for evacuations (e.g., special assistance for hospitals)
- Agreements with nearby jurisdictions to receive evacuees
- Agreements with hospitals outside the local jurisdictions
- Protective shelter for relocated populations
- Reception and care of evacuees
- Re-entry procedures

Chapter 252 of the Florida Statutes (State Emergency Management Act, as amended) directs the establishment of county emergency management agencies in each county of the State of Florida and authorizes such agencies in the cities of the State. The Act provides for the rendering of mutual aid among political subdivisions, authority for the formulation of local disaster preparedness plans and for the authority to utilize the resources necessary to cope with a disaster emergency, including the power to direct and compel the evacuation of all or part of the county's population from threatened or stricken areas necessary for the preservation of life and other disaster mitigation, response or recovery.

The DOT Emergency Response Guidebook provides suggested distances for evacuating unprotected people from the scene of an incident during the initial phase. It is important to distinguish between general evacuation of the entire area and selective evacuation of a part of the risk zone. In either case, the plan should identify how people will be moved (i.e., by city buses, police cars, private vehicles). Provisions must be made for quickly moving traffic out of the risk zone and also for preventing outside traffic from entering the risk zone. If schools are located in the risk zone, identify the location to which students will be moved in an evacuation and how parents will be notified of this location. Special attention must also be paid to evacuating hospitals, nursing homes, and homes for the physically or mentally disabled.

The characteristics of the hazardous substance will influence what conditions must be met to allow evacuees to return to their homes.

Copies of evacuation procedures should be provided to all appropriate agencies and organizations (e.g., Salvation Army, churches, schools, hospitals) and could periodically be published in the local newspaper(s).

If a particular response action that poses a significant hazard is planned (e.g., hot-tapping a pressure tank), then resident evacuation should be considered before operations are begun.

Contact the cognizant County Emergency Operations Center for emergency shelters in Northeast and Eastern Central Florida.
If evacuation is necessary, evacuation routes will be dependent upon the particular hazard and will need to be determined as needed.

7240.2 Other Public Protection Strategies

- Relocation
- Water supply protection
- Sewage system protection

Some hazardous materials incidents may contaminate the soil or water of an area and pose a chronic threat to people living there. It may be necessary for people to move out of the area for a substantial period of time until the area is decontaminated or until natural weathering or decay reduces the hazard. Planning must provide for the quick identification of a threat to the drinking water supply, notification of the public and private system operators, and warning of the users. Planners should also provide sewage system protection. A hazardous chemical entering the sewage system can cause serious and long-term damage. It may be necessary to divert sewage, creating another public health threat and environmental problems.

7250 Fire and Rescue

- Chain of command among firefighters
- List of available support systems
- List of all tasks for firefighters

Firefighters should be trained in proper safety procedures when approaching a hazardous materials incident. They should have copies of the DOT Emergency Response Guidebook and know how to find shipping manifests in trucks, trains, and vessels.

Operations Chief, Fire and Rescue Department

- Prepare and execute plans to disperse fire fighting equipment and personnel to minimize the risk of damage, injury or loss.
- Plan for the acquisition of additional equipment and personnel required during an emergency.
- Maintain adequate communications facilities for normal operations and liaison with the Emergency Operations Center.

Senior Battalion Chief, Fire and Rescue Department

- Develop secondary water supplies.

Chief of Training, Fire and Rescue Department

- Prepare and execute plans to protect wooded areas.
- Train additional emergency fire personnel.

The Consolidated City of Jacksonville is fortunate in that the entire area of Duval County is protected by full-time, totally professional fire suppression and emergency medical services. Any incident reaching the disaster level regardless of cause, which could be natural or accidental, is provided for under the Standard Operating Procedures of the Jacksonville Fire and Rescue Department. These SOPS are constantly updated by the Fire Training Division of that Department. If a situation is so severe that it exceeds the Jacksonville Fire and Rescue Department's ability to respond, other agencies will be requested to provide assistance, namely State Division of Forestry, local Navy Fire Departments, County Municipal Fire Department's, nearby city departments or through the Statewide Mutual Aid Agreement of the Florida Fire Chief’s Association.
Further assistance will be requested of the Governor by the Mayor.

7260 Law Enforcement

- Chain of command for law enforcement officials
- List of all tasks for law enforcement personnel

Because major emergencies will usually involve state, county, and local law enforcement personnel, and possibly the military, a clear chain of command must be determined in advance. Because they are frequently first on scene, law enforcement officials should be trained in proper procedures for approaching a hazardous materials incident. They should have copies of the DOT Emergency Response Guidebook and know how to find shipping manifests in trucks, trains, and vessels. Specific information about protective equipment for law enforcement officials should be included here.

7260.1 Sheriff, Consolidated City of Jacksonville/Duval County

- As member of the Executive Group of the Emergency Operations Center, the Sheriff will be responsible for the coordination of all law enforcement activities, utilizing primarily the Sheriff's communication facilities and operations center.
- Maintain adequate communication facilities and establish alternative communications.

7260.2 Chief of Patrol, Sheriff's Office

The Sheriff's principle representative within ESF-16, the Chief of Patrol will prepare and execute emergency regulations and written directives concerning traffic control and the establishment of open routes for traffic and keeping thoroughfares free for necessary civilian and military movements. He and his supporting personnel will execute contingency plans and written directives for the control of panic situations, the prevention of looting, the enforcement of Emergency Preparedness regulations and other law enforcement requirements during and following a disaster.

7260.3 Jacksonville Sheriff's Office

The responsibilities, duties, assignments, policies and emergency operation procedures of the Jacksonville Sheriff's Office is established, maintained and revised within the Sheriff's Unusual Occurrence Manual, a copy of which is located within the Emergency Operations Center and the County Warning Point.

7260.4 Florida Department of Law Enforcement

- Coordinate locally active state law enforcement resources and monitor and facilitate implementation of State Law Enforcement Mutual Aid Agreement.

7270 Reserved

[RESERVED for Area Committee Development]
7280 Ongoing Incident Assessment

- Field monitoring teams
- Provision for environmental assessment, biological monitoring, and contamination surveys
- Food/water controls

After notification that a release has occurred, it is crucial to monitor the release and assess its impact, both onsite and offsite. A detailed log of all sampling results should be maintained.

Health officials should be kept informed of the situation. Often the facility at which the release has occurred will have the best equipment for this purpose.

This section should describe who is responsible to monitor the size, concentration, and movement of leaks, spills, and releases, and how they will do their work. Decisions about response personnel safety, citizen protection (whether indoor or through evacuation), and the use of food and water in the area will depend upon an accurate assessment of spill or plume movement and concentration. Similarly, decisions about containment and clean up depend upon monitoring data.

Air and water monitoring can be made simple as long as it is capable of detecting change in the spill area. Suggestions include: CGI/O2, RAD, PID, compound specific detectors (colorimetric tubes), pH paper, temperature and conductivity for water, particulate matter meter, and compounds based on hazards analysis.

7280.1 Human Services

For a list of agencies providing human services, such as the American Red Cross, refer to Section 9270. For a listing of hospitals, refer to Section 9265.1.

7280.2 Containment and Cleanup

- Techniques for Spill Containment and Clean up
- Resources for Clean up and Disposal
- Containment and mitigation actions
- Clean up methods
- Restoration of the surrounding environment

Local responders will typically emphasize the containment and stabilization of an incident. State and Federal regulatory agencies can focus on cleanup details. Federal RRT agencies can provide assistance during the cleanup process. It is the releaser’s legal and financial responsibility to clean up and minimize the risk to the health of the general public and workers that are involved. The FOSC or other government officials should monitor the responsible party cleanup activities.

A clear and succinct list of appropriate containment and cleanup countermeasures should be prepared for each hazardous material present in the community in significant quantities. This section should be coordinated with the section on “Response Personnel Safety” so that response teams are subjected to minimal danger. Planners should concentrate on the techniques that are applicable to the hazardous materials and terrain of their area. It may be helpful to include sketches and details on how clean up should occur for certain areas where spills are more likely.

It is important to determine whether a fire should be extinguished or allowed to burn. Water used in firefighting could become contaminated and then would need to be contained or possibly treated. In addition, some materials
may be water-reactive and pose a greater hazard when in contact with water. Some vapors may condense into pools of liquid that must be contained and removed. Accumulated pools may be recovered with appropriate pumps, hoses, and storage containers. Various foams may be used to reduce vapor generation rates. Water sprays or fog may be applied at downwind points away from “cold” pools to absorb vapors and accelerate their dispersal in the atmosphere. (Sprays and fog might not reduce an explosive atmosphere.) Volatile liquids might be diluted acids and bases or neutralized. If a toxic vapor comes to the ground on crops, on playgrounds, in drinking water, or other places where humans are likely to be affected by it, the area should be tested for contamination. Appropriate steps must be taken if animals (including fish and birds) that may become part of the human food chain are in contact with a hazardous material. It is important to identify in advance what instruments and methods can be used to detect the material in question.

Restoration of the area is a long-range project, but general restoration steps should appear in the plan. Specific consideration should be given to the mitigation of damages to the environment.

7280.3 Decontamination

Decontamination of Response Personnel. Decontamination is the process of removing or neutralizing harmful materials that have gathered on personnel and/or equipment during the response to a chemical incident. Many incidents have occurred involving seemingly successful rescue, transport, and treatment of chemically contaminated individuals by unsuspecting emergency personnel who, in the process, contaminate themselves, the equipment, and the hospital where the patient is taken. Decontamination is of the utmost importance because it:

- Protects all hospital personnel by sharply limiting the transfer of hazardous materials from the contaminated area into clean zones.
- Protects the community by preventing transportation of hazardous materials from the hospital to other sites in the community by secondary contamination.
- Protects workers by reducing the contamination and resultant permeation of, or degradation to, their protective clothing and equipment.
- Protects other patients already receiving care at the hospital.

It should be stressed that to carry out proper decontamination, personnel must have received at least the same degree of training as required for workers who respond to hazardous materials incidents. The design of the decontamination process should take into account the degree of hazard and should be appropriate for the situation. For example, a nine-station decontamination process need not be set up if only a bootwash station would suffice.

Avoiding contact is the easiest method of decontamination that is, not to get the material on the worker or his protective equipment in the first place. However, if contamination is unavoidable, then proper decontamination and/or disposal of the worker’s outer gear will be necessary. Segregation and proper placement of the outer gear in a polyethylene bag or steel drum will be necessary until thorough decontamination is completed. With extremely hazardous materials, it may be necessary to dispose of the contaminated items altogether.

Physical decontamination of protective clothing and equipment (known as technical decontamination) can be achieved by several different means. These all include the systematic removal of contaminants by physical methods, such as dilution, brushing, scraping, and vacuuming, and by chemical methods where the contaminant is degraded, neutralized, solidified, or disinfected through some type of chemical process. There is an increasing trend toward using disposable clothing (e.g., suits, boots, gloves) and systematically removing these garments in a manner that precludes contact with the contaminants. The used items of clothing are then thrown away in a sealed container. Reusable suits will require thorough cleaning and testing after each use. The appropriate decontamination procedure
will depend on the contaminant and its physical properties, and on the type of CPC being worn. Thoroughly researching the chemicals involved and their properties, or consultation with an expert, is necessary to make these kinds of decisions.

In addition to understanding the technical decontamination steps to be used for CPC and equipment, responders must be familiar with the emergency procedures to be followed if a responder wearing PPE becomes ill or is injured and needs to be quickly decontaminated prior to normal removal of his suit.

Care must be taken at all times to ensure that the decontamination methods being used do not introduce fresh hazards into the situation. In addition, the residues of the decontamination process must be treated as hazardous wastes. The decontamination stations and process should be confined to the Contamination Reduction Zone.

7290 Planning

[RESERVED for Area Committee Development]

7300 Response Considerations

This section is organized as follows:
7300.1 Direction and Control
7310 Response Priorities

7300.1 Direction and Control

This section outlines the responsibilities of various entities for direction and control of responses to hazardous materials releases in the coastal area.

7300.1.1 Sector Jacksonville

Coast Guard Sector Jacksonville is not specially trained or equipped to respond to a hazardous material release. Sector Jacksonville maintains a level D response capability with basic training in the management of hazardous material releases. In addition the Sector has an extensive library of chemical reference materials and has access to the Computer-Aided Management of Emergency Operations (CAMEO) and Aerial Locations of Hazardous Atmospheres (ALOHA) computer software programs. These programs can help the pollution investigators identify the pollutant and inform them of the hazardous associated with that particular material

and the necessary safety equipment needed for the response. The ALOHA program produces an aerial map of an airborne chemical release and can help identify those areas which should be avoided or evacuated.

7300.1.2 Local HAZMAT Teams

The City of Jacksonville Fire Department has the only certified HAZMAT response team in the northern half of Sector Jacksonville's response zone. The city has a mutual assistance agreement with all of the surrounding counties and has even responded to a HAZMAT incident in Camden County Georgia. The southern half of Sector Jacksonville's zone is serviced by the Brevard County HAZMAT response team which has a similar mutual assistance agreement with its surrounding counties. These HAZMAT response teams have Level A, B, and C HAZMAT response entry capabilities and are trained to contain and mitigate any foreseeable hazardous material release in the AOR.
7300.1.3 USCG Strike Teams

If the release is too large for the local resources to handle effectively, the FOSC may call the NSF Gulf Strike Team for assistance. The Gulf Strike Teams capabilities include:

- Responding with trained personnel and specialized equipment to prevent, contain and/or remove releases of hazardous materials
- Identifying, locating, and assisting in the transportation of specialized equipment needed for response
- Supervising/monitoring response personnel on sites
- Outlining, establishing, monitoring site safety requirements during hazardous material spill/release operations
- Providing resource and photographic documentation support
- Providing command, control, and communications support

7310 Response Priorities

This section outlines the response priorities for all agencies following a hazardous materials release. The section is organized as follows:
7310.1 Population / Health and Safety
7310.2 Environmental Priorities
7310.3 Economic Priorities

7310.1 Population / Health and Safety

See Section 2300 Health and Safety of the Northeast and Eastern Central Florida Area Contingency Plan.

7310.2 Environmental Priorities

Refer to Section 4600.

7310.3 Economic Priorities

Refer to Section 4660.

7320 Resource Management

This section is organized as follows:
7320.1 Identification of Resources
7320.2 Resources for Clean up and Disposal

7320.1 Identification of Resources

See Sections 8000 Marine Firefighting and 9200 Personnel and Services Directory of the Northeast and Eastern Central Florida ACP for response resources.
7320.2 Resources for Clean up and Disposal

See Section 3240 Disposal Group of the Northeast and Eastern Central Florida ACP for disposal regulations. See Section 9240 Private and Other Resources of the Northeast and Eastern Central Florida ACP for Clean up and Disposal organizations.

7330 Information Management and Communications

This section is organized as follows:
7330.1 Communication
7330.2 Information Management

7330.1 Communication

The UC should consider the following in bolstering their communications capabilities on-scene and among port/community:

- **Communicate the hazards**: Use the media to assist in communicating the hazards associated with the hazardous substance incident to the public.

- **Control access to scene(s)**: In addition to controlling access by the media to the incident scene(s) so that they do not interfere with operations or become casualties themselves, the media can also pass to the public information on street/road closures and alternate routes around the incident area.

- **Consider media as an asset**: Emergency responders should consider using the media to help communicate the hazards of entering this potentially dangerous crime scene, and help instill confidence that the incident is being managed in the most expedient and efficient manner.

7330.2 Information Management

Because of the potential complexities of a hazardous substance response and the relationship building and liaison skills needed to coordinate actions between the ICS/UC, the victims and the responders, and the responders and the community, the FOSC and UC members should consider the following to ensure the proper internal and external information flow during the response.

- **Information Management**: The most important elements of any emergency response are the protection of life, environment, and property. These priorities lead to the establishment of objectives that drive the response. Information is the basis of every decision that is made during a response. Everyone from the Incident Commander establishing the objectives to the field worker cleaning a beach will make decisions based on the information presented to them. With that basic premise in mind, Information Management is arguably the most important supporting function of emergency spill response. It is the most critical and necessary means to a successful end. Time after time, post response and drill critiques have pointed to inadequate information flow, and communications as one of the most significant areas needing improvement during response.

Information management serves the information needs internal to the response organization as well as many information needs external to the actual emergency response operations. Well planned and executed information management is where the battle is won during emergency spill response, directly impacting the actual cleanup and response effectiveness. Successful information management is dependent on “getting the right piece of information
in the right format to the right place at the right time”. It is not too surprising that the complex task of managing the information needs during response often falls short without adequate levels of training and planning.

- **Internal Information Management.** Internal information management is all of the situational, environmental, physical, status, planning, operational, logistical, and financial information needed by the Incident Command System (ICS) to make decisions and affect a successful response. Successful internal information management requires an advanced level of skill to accomplish. The majority of critical internal information management is the responsibility of the Situation Unit Leader (SUL) who maintains status boards and situational displays in the Command Center. It is very important to understand, however, that the SUL will never be fully successful without the support of the entire ICS. Each position within the organization has information management responsibilities, which must feed into the appropriate pathway during the response.

Important skills for information managers include obtaining critical information, disseminating it and avoiding information overflow. Information managers must understand the need and have the ability to provide a synthesis of information and present it in a context that is relevant for the decisions at hand.

- **External Information Management.** Trustees and other stake holders must be informed in order to fulfill their management and decision making responsibilities. The public, also an important stakeholder during spill response, needs to be informed and kept abreast of important developments. The Unified Command must develop a pathway for getting their information into the Incident Command.

When multiple public or private agencies and organizations come together to respond to an emergency or manage an event, efficient information flow is critical to effectively carrying out Information Officer/Joint Information Center (JIC) responsibilities and meeting the expectations of various publics. A JIC is a centralized “communication hub” that serves to achieve that information flow. Establishing a JIC, developing processes and procedures, and training staff on how to operate a JIC effectively allow response organizations to be more proactive in responding to the information needs of responders, the public, federal, state, and local governments, foreign governments, and industry.

Because of the critical nature of providing emergency information to disaster victims, time spent getting
organized rather than responding at the time of an event can lead to confusion and a loss of public confidence. Through a JIC, the different agencies involved in a response can work in a cohesive manner, enabling them to “speak with one voice”.

- **Information Management Tools.** Information management tools are available to On-Scene Coordinators (OSC) to assist in meeting information management needs during response. Some of these tools are designed to address internal information management needs, while others specifically target external information needs. Often, certain tools can, to some degree, serve both internal and external needs. OSCs are encouraged to become familiar with these tools and employ them in drills as well as actual responses in order to be better prepared to effectively and efficiently integrate them into the response when needed. It is necessary to remember that the most important element in successful information management is trained and capable people. The variety of ever growing computer-based technologies designed to assist with information management require the right people to use and manage them effectively.

- **Situation Unit Leader.** The Situation Unit Leader (SUL) is responsible for the situation display, distribution center, staffing, providing information conduits to sections and field units.

The Situation Unit is responsible for the collection and evaluation of information for the current and future status of the spill. The unit is also tasked with preparing, posting, or disseminating resource and situation status information. JIC personnel are focused on public (external) information, whereas the Situation Unit focuses on the operational status (internal) information needs. The two are different; not all information is appropriate for release to the public, yet it needs to be available to other sections of the ICS. The JIC needs to be one of the receivers of this internal status information, as well as the sole provider of external status products based on releasable internal information. A strong, proactive, and dynamic Situation Unit needs to be implemented to be effective. Charismatic personnel need to be assigned to this specific unit. Too often, the best-trained people who understand the need for aggressive information management are sent to other tasks. The Situation Unit needs to have aggressive and knowledgeable people to ensure information is gathered and evaluated effectively. An operationally savvy person supporting the JIC can also enhance the accuracy of gathered and released information. If the internal flow of information fails, the response will suffer. Checklists for the information management team would include times of meetings, times for product updates, key personnel, and points of contact within the response.

- **Joint Information Center (JIC).** The JIC is important external information management tool. The JIC must be well coordinated with the Situation Unit Leader. The physical location of the JIC should be conducive to effect this coordination. The JIC structure is most useful when multiple agencies and organizations come together to respond to an emergency or manage an event and need to provide coordinated, timely, accurate information to the public and other stakeholders. By maintaining a centralized communication facility, resources can be better managed and duplication of effort is minimized. Finally, the use of a JIC allows for tracking and maintaining records and information more accurately therefore, improving the ability to conduct post-incident assessments that can be used to improve crisis communication and general response activities during future incidents.

- **Incident Command System (ICS).** The response organization itself is an important information management tool. Each member must understand the importance of information management and be prepared to support it. Section Chiefs in particular need to understand the critical information need from various sections and insure it gets to the right place. They must also know where to go to get specific types of information they will need.

- **OSC2.** OSC2 developed and supported by the Coast Guard provides the response management system an internal spill management tool. OSC2 is a software application designed for use by oil spill responders to manage the information traditionally contained on paper ICS Forms. The OSC2 application use electronic
ICS Forms as an interface to a central database that stores the spill application information making it instantly available to all members of the spill response team.

- **NOAA Spill Web.** NOAA Spill Web is an external tool, but can serve some internal needs as well. The system is normally an incident specific web site set up and maintained offsite, but fed by the Unified Command (UC). Release authorization for any posted information can be accomplished through the JIC, DRAT, or designated by subject matter within the UC.

- **Geographic Information Systems (GIS) and Other State or Responsible Party Contracted Information Management Tools.** Often there are GIS or similar mapping systems available that can support a variety of information management needs during the response. These may be supported by states, Coast Guard units, or outside contracted entities. Other information management tools may be available to the UC through responsible parties or other outside contractors. It is important that any of these tools be integrated into the ICS to coordinate with other information management tools to effectively and jointly meet the UC’s information needs. It’s also important that the information developed, maintained, and supported by these tools be transferred to the UC prior to the operators departing the scene. System compatibility issues need to be considered to avoid losing important information and documentation related to the response.

### 7330.3 Documentation and Investigative Follow-up

- Format for reports
- Provision for cost recovery

Responders should use the ICS Forms adapted from the National Interagency Incident Management System (NIIMS) by the States/BC Task Force and approved by the USCG for oil spill response.

See Section 6300 Cost of the Northeast and Eastern Central Florida ACP for documentation and recovery information.

### 7340 Logistics

This section is organized as follows:

- **7340.1 Communications**
- **7340.2 Health and Medical Services**

#### 7340.1 Communications

See Section 5330 of the Northeast and Eastern Central Florida ACP.

#### 7340.2 Health and Medical Services

This section is organized as follows:

- **7340.2.1 Provisions for ambulance service and other victim/patient transportation**
- **7340.2.2 Provisions for medical treatment**
7340.2.1 Provisions for Ambulance Service and other Victim/Patient Transportation

Refer to Section 9265.2 for EMS information.

7340.1.2 Provisions for Medical Treatment

- Identify hospitals
- EMS support
- Other health related resources

Refer to Sections 9265.1 and 9265.2.

7350 Finance/Administration

This section is organized as follows:
7350.1 General
7350.2 Comprehensive Environmental Response, Compensation, and Liability Act, 1980
7350.3 Robert T. Stafford Act

7350.1 General

Many localities are initially overwhelmed by the prospect of providing ample funding for hazardous materials response activities. In large localities, each response agency is usually responsible for providing and maintaining certain equipment and personnel; in such cases, these individual agencies must devise funding methods, sources, and accounting procedures. In smaller localities with limited resources, officials frequently develop cooperative agreements with other jurisdictions and private industries. Some communities stipulate in law that the party responsible for an incident should ultimately pay the cost of handling it. In some states, regional HAZMAT teams that are responsible for several communities share costs.

See Section 6000 Finance/Administration of the Northeast and Eastern Central Florida ACP.

7350.2 Comprehensive Environmental Response, Compensation, and Liability Act, 1980

OSC's access the Superfund directly, to fund their response activities. By having an OSC at an incident, you’re ensuring that the response will be conducted in accordance with the NCP and that the OSC will be able to access Superfund for costs allowable under the NCP.

However, there are two other ways that the Superfund can be accessed -- either through Local Government Reimbursement (LGR) or the claims process. The claims process only works if a response action was preauthorized and therefore is relatively rarely used. The LGR addresses the following:

- Overtime pay for employees
- Expendable materials and supplies
- Replacement of equipment lost or destroyed
- Rental or leasing of equipment
- Special technical and laboratory services
- Evacuation services
• Decontamination of equipment

Only one request for reimbursement may be submitted to EPA for each emergency response. If more than one agency or municipality participates in a response, they must decide who will submit the application on behalf of all those involved. The replacement of disposable materials and supplies that were already owned by the local government and consumed during the response ARE NOT reimbursable. Because the local government prior to the response owned these materials and supplies, they are considered a part of the applicant’s normal operating budget.

7350.3 Robert T. Stafford Disaster Relief and Emergency Assistance Act Funding Process

In the event of a disaster, when the Federal Response Plan (FRP) is activated to assist an impacted State, we will pursue the use of Robert T. Stafford Disaster Relief and Emergency Assistance Act funding to reimburse allowable costs incurred in support of their activities under Emergency Support Function-10 (ESF #10) “Hazardous Materials Annex.” In the aftermath of a disaster, where the responsible party of a pollution incident is either unknown or non-responsive, it is appropriate to use Stafford Act funding as the federal mechanism to address the pollution threat. This Stafford Act funding can be used in the discovery, assessment, evaluation, containment, countermeasure, cleanup, disposal, and documentation phases of the response/removal action. Stafford Act funding can be used to address all the pollutants identified within the FRP which includes those pollutants normally responded to using the Oil Spill Liability Trust Fund (OSLTF) and the Comprehensive Environmental Response, Conservation, and Liability Act (CERCLA) Fund.

FEMA Mission Assignment. The affected State will request a Mission Assignment from FEMA to address pollution issues. The EPA will facilitate ESF #10 Mission Assignments for EPA and Coast Guard actions. For activities within each State, Mission Assignments can be expected to be issued for the following efforts:

• Activation of the ERT-A;
• Technical Assistance/Assessment work; and
• Direct Federal Assistance/Response work.

If coastal zone is or has the potential to be impacted by the disaster, the EPA will attach specific tasking within the Mission Assignment to support Coast Guard actions. The EPA will then initiate an Inter-agency Agreement (IAG) with the Coast Guard to support Coast Guard costs under the Mission Assignment until reimbursed by the Stafford Act.

Oil Spill Liability Trust Fund (OSLTF) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Fund. The use of the OSLTF and the CERCLA Fund should be avoided during Stafford Act declarations where the pollution event was caused by the disaster or emergency. However, if the Stafford Act funding process stated in this guidance is not fulfilling the immediate funding needs of the OSC, the pollution funds may always be used. Funding for pollution incidents commenced prior to a Stafford Act declaration or from sources not potentially impacted by the disaster shall be completed using the applicable pollution fund.

7400 RESERVED

[RESERVED for future Area Committee Development]

7500 RESERVED

[RESERVED for future Area Committee Development]
## 7610 Acronyms and Abbreviations

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<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AAR IBOE</td>
<td>Association of American Railroads/Bureau of Explosives</td>
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<td>AIChE</td>
<td>American Institute of Chemical Engineers</td>
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<tr>
<td>ASCS</td>
<td>Agricultural Stabilization and Conservation Service</td>
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<td>ASME</td>
<td>American Society of Mechanical Engineers</td>
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<td>ASSE</td>
<td>American Society of Safety Engineers</td>
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<td>ATSDR</td>
<td>Agency for Toxic Substances and Disease Registry (HHS)</td>
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<td>CAA</td>
<td>Clean Air Act 42 U.S.C. s/s 7401 et seq</td>
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<td>CAER</td>
<td>Community Awareness and Emergency Response (ACC)</td>
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<td>CAMEO</td>
<td>Computer Assisted Management of Emergency Operations</td>
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<td>CDC</td>
<td>Centers for Disease Control and Prevention (HHS)</td>
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<td>CEPPPO</td>
<td>Chemical Emergency Preparedness and Prevention Office</td>
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<td>CFR</td>
<td>Code of Federal Regulations</td>
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<td>CHEMNET</td>
<td>A mutual aid network of chemical shippers and contract service providers</td>
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<td>CHEMTREC</td>
<td>Chemical Transportation Emergency Center operated by American Chemistry Council</td>
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<tr>
<td>CHLOREP</td>
<td>A mutual aid group comprised of shippers and carriers of chlorine</td>
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<td>ACC</td>
<td>American Chemistry Council</td>
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<td>CWA</td>
<td>Clean Water Act</td>
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<td>DOC</td>
<td>U.S. Department of Commerce</td>
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<td>DOD</td>
<td>U.S. Department of Defense</td>
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<td>DOE</td>
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<td>U.S. Department of Transportation</td>
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<td>EENET</td>
<td>Emergency Education Network (FEMA)</td>
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<td>EMA</td>
<td>Emergency Management Agency</td>
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<td>EMI</td>
<td>Emergency Management Institute</td>
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<td>EOC</td>
<td>Emergency Operations Center</td>
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<td>EOP</td>
<td>Emergency Operations Plan</td>
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<td>EPA</td>
<td>U.S. Environmental Protection Agency</td>
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<td>EPCRA</td>
<td>Emergency Planning and Community Right-to-Know Act of 1986 (SARA Title III)</td>
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<td>ERD</td>
<td>Emergency Response Division (EPA)</td>
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<td>ERNS</td>
<td>Emergency Release Notification System</td>
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<td>FEMA</td>
<td>Federal Emergency Management Agency</td>
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<td>FEMA-REP-5</td>
<td>Guidance for Developing State and Local Radiological Emergency Response Plans and Preparedness for Transportation Accidents</td>
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<td>FWPCA</td>
<td>Federal Water Pollution Control Act</td>
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<tr>
<td>HAZMAT</td>
<td>Hazardous Materials</td>
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</table>
HAZOP Hazard and Operability Study
HCS Hazardous Communications Standard
HHS U.S. Department of Health and Human Services
HSDB Hazardous Substance Database of the Toxicology Data Network (ToxNet) operated by the National Library of Medicine
ICP Integrated Contingency Plan
ICS Incident Command System
IEMS Integrated Emergency Management System
LEPC Local Emergency Planning Committee
MSDS Material Safety Data Sheet
NACD National Association of Chemical Distributors
NCP National Contingency Plan
NCRIC National Chemical Response and Information Center (ACC)
NETC National Emergency Training Center
NFA National Fire Academy
NFPA National Fire Protection Association
NIOSH National Institute of Occupational Safety and Health (CDC)
NOAA National Oceanic and Atmospheric Administration
NRC U.S. Nuclear Regulatory Commission; National Response Center
NRT National Response Team
OCA Offsite Consequence Analysis
OHMTADS Oil and Hazardous Materials Technical Assistance Data System
OPA Oil Pollution Act of 1990 33 U.S.C. 2702 to 2761
OSC On-Scene Coordinator
OSHA Occupational Safety and Health Administration (DOL)
PHA Process Hazards Analysis
PPA Pollution Prevention Act 42 U.S.C. 13101 and 13102, s/s et seq.
PSM Process Safety Management
RCRA Resource Conservation and Recovery Act 42 U.S.C. s/s 321 et seq
RMP Risk Management Plan (EPA)
RQs Reportable Quantities
RRT Regional Response Team
RSPA Research and Special Programs Administration (DOT)
SCBA Self-Contained Breathing Apparatus
SERC State Emergency Response Commission
SPCC Spill Prevention Control and Countermeasures
TPQ Threshold Planning Quantity
TRI Toxic Release Inventory
TSD Treatment, Storage, and Disposal Facilities
USCG U.S. Coast Guard (DOT)
USDA U.S. Department of Agriculture
USGS U.S. Geological Survey
USNRC U.S. Nuclear Regulatory Commission

7620 Glossary

CAER Community Awareness and Emergency Response program developed by the American Chemistry Council. Guidance for chemical plant managers to assist them in taking the initiative in
cooperating with local communities to develop integrated (community/industry) hazardous materials response plans. More information on CAER can be obtained by visiting ACC’s website at www.cmahq.com.

**CEPPO**

Chemical Emergency Preparedness and Prevention Office develops program to address accidental releases of chemicals through outreach, right-to-know, and regulations.

**CHEMNET**

Can be updated using website information. A mutual aid network of chemical shippers and contractors. CHEMNET is activated when a company, who is a member of the CHEMNET program, is notified by the CHEMTREC Center that an incident involving one of its products has occurred and that expert assistance may be needed at the scene. If the affected company is unable to respond to the scene in a timely manner because of distance or other circumstances, the CHEMTREC Emergency Center can link the shipper with the nearest CHEMNET response team that is capable and available to respond. More information on CHEMNET can be obtained by visiting ACC’s website at www.cmahq.com.

**CHEMTREC**

Can be updated using website information. Chemical Transportation Emergency Center operated by the American Chemistry Council. Provides information and assistance to emergency responders. CHEMTREC contacts the shipper or producer of the material for more detailed information, including on-scene assistance when feasible. More information on CHEMTREC can be obtained by visiting ACC’s website at www.cmahq.com. Brochures and registration forms may be obtained by emailing chemtrec@cmahq.com, writing CHEMTREC, 1300 Wilson Boulevard, Arlington, VA 22209, or calling: 1-800-262-8200. CHEMTREC can be reached 24 hours a day by calling 1-800-424-9300.

**CHLOREP**

Can update with website information. Chlorine Emergency Plan operated by the Chlorine Institute. A 24-hour mutual aid program. Response is activated by a CHEMTREC call to the designated CHLOREP contact, who notifies the appropriate team leader, based upon CHLOREP’s geographical sector assignments for teams. The team leader in turn calls the emergency caller at the incident scene and determines what advice and assistance are needed. The team leader then decides whether or not to dispatch his team to the scene. More information on CHLOREP can be obtained by visiting www.cl2.com/chlorep/index.html.

**CPG 1-3**

Federal Assistance Handbook: Emergency Management, Direction and Control Programs, prepared by FEMA. Provides states with guidance on administrative and programmatic requirements associated with FEMA funds.

**SLG 101**

Guide for All-Hazard Emergency Operations Planning (see EOP below). This document is available online at www.fema.gov/pte/gaheop.htm.

**EAS**

Emergency Alert System to be used to inform the public about the nature of a hazardous materials incident and what safety steps they should take.

**EMI**

The Emergency Management Institute is a component of FEMA’s National Emergency Training Center located in Emmitsburg, Maryland. It conducts resident and nonresident training activities for Federal, state, and local government officials, managers in the private economic sector, and members of professional and volunteer organizations on subjects that range from civil nuclear preparedness systems to domestic emergencies caused by natural and technological hazards. Nonresident training activities are also conducted by State Emergency Management Training Offices under cooperative agreements that offer financial and technical assistance to establish annual training programs that fulfill emergency management training requirements in communities.
ERT  Environmental Response Team, a group of highly specialized experts available through EPA 24 hours a day.

EOP  Emergency Operations Plan developed in accord with the guidance in SLG 101. EOPs are multi-hazard, functional plans that treat emergency management activities generically. EOPs provide for as much generally applicable capability as possible without reference to any particular hazard: then they address the unique aspects of individual disasters in hazard-specific appendixes.

HAZARDOUS MATERIALS  Refers generally to hazardous substances, petroleum, natural gas, synthetic gas, acutely toxic chemicals, and other toxic chemicals.

HAZOP  Hazard and operability study, a systematic technique for identifying hazards or operability problems throughout an entire facility. One examines each segment of a process and lists all possible deviations for normal operating conditions and how they might occur. The consequences on the process are assessed, and the means available to detect and correct the deviations are examined.

ICS  Incident Command System, the combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure with responsibility for management of assigned resources to effectively accomplish stated objectives at the scene of an incident.

IEMS  Integrated Emergency Management System, developed by FEMA in recognition of the economies realized in planning for all hazards on a generic functional basis as opposed to developing independent structures and resources to deal with each type of hazard.

NFA  The National Fire Academy is a component of FEMA’s National Emergency Training Center located in Emmitsburg, Maryland. It provides fire prevention and control training for the fire service and allied services. Courses on campus are offered in technical, management, and prevention subject areas. A growing off-campus course delivery system is operated in conjunction with state fire training program offices.

NRC  National Response Center, a communications center for activities related to response actions, is located at Coast Guard headquarters in Washington, DC. The NRC receives and relays notices of discharges or releases to the appropriate OSC, disseminates OSC and RRT reports to the NRT when appropriate, and provides facilities for the NRT to use in coordinating a national response action when required. The toll-free number (800-424-8802 can be reached 24 hours a day for reporting actual or potential pollution incidents.

NRT  National Response Team, consisting of representatives of 16 government agencies (DOD, DOI, DOT/RSPA, DOT/USCG, EPA, DOC, FEMA, DOS, USDA, DOJ, HHS, DOL, Nuclear Regulatory Commission, DOE, GSA, and Treasury), is the principal organization for implementing the NCP. When the NRT is not activated for a response action, it serves as a standing committee to develop and maintain preparedness, to evaluate methods of responding to discharges or releases, to recommend needed changes in the response organization, and to recommend revisions to the NCP. The NRT may consider and make recommendations to appropriate agencies on the training, equipping, and protection of response teams: and necessary research, development, demonstration, and evaluation to improve response capabilities.
NSF

National Strike Force, made up of three Strike Teams. The USCG counterpart to the EPA ERTs.

OHMTADS

Oil and Hazardous Materials Technical Assistance Data System, a computerized data base containing chemical, biological, and toxicological information about hazardous substances. OSCs use OHMTADS to identify unknown chemicals and to learn how to best handle known chemicals.

OSC

On-Scene Coordinator, the Federal official pre-designated by EPA or USCG to coordinate and direct Federal responses and removals under the NCP; or the DOD official designated to coordinate and direct the removal actions from releases of hazardous substances, pollutants, or contaminants from DOD vessels and facilities. When the National Response Center receives notification of a pollution incident, the National Response Center Duty Officer notifies the appropriate OSC, depending on the location of an incident. Based on this initial report and any other information that can be obtained, the OSC makes a preliminary assessment of the need for a Federal response. If an on-scene response is required, the OSC will go to the scene and monitor the response of the responsible party or state or local government. If the responsible party is unknown or not taking appropriate action, and the response is beyond the capability of state and local governments, the OSC may initiate Federal actions, using funding from the FWPCA Pollution Fund for oil discharges and the CERCLA Trust Fund (Superfund) for hazardous substance releases.

RRT

Regional Response Teams composed of representatives of Federal agencies and a representative from each state in the Federal region. During a response to a major hazardous materials incident involving transportation or a fixed facility, the OSC may request that the RRT be convened to provide advice or recommendations in specific issues requiring resolution. Under the NCP, RRTs may be convened by the chairman when a hazardous materials discharge or release exceeds the response capability available to the OSC in the place where it occurs; crosses regional boundaries; or may pose a substantial threat to the public health, welfare, or environment, or to regionally significant amounts of property. Regional contingency plans specify detailed criteria for activation of RRTs. RRTs may review plans developed in compliance with Title III, if the local emergency planning committee so requests.
Northeast and Eastern Central Florida Area Contingency Plan

Annex 8000: Marine Firefighting Plan
8000 MARINE FIREFIGHTING

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8100 Abbreviations

USACE: Army Corps of Engineers
ACP: Area Contingency Plan
CFR: Code of Federal Regulations
COTP: Captain of the Port
CPA: Canaveral Port Authority
DEM: Florida Department of Emergency Management
FOSC: Federal On-Scene Coordinator
IC: Incident Commander
ICS: Incident Command System
ICP: Incident Command Post
JPA: Jacksonville Port Authority
MPS: Maritime Pre-positioned Ships
MSO: Marine Safety Office
NFPA: National Fire Protection Association
NPFC: National Pollution Funds Center
OPLAN: Operations plan
OCS: On-Scene Coordinator
SAR: Search and Rescue
SOP: Standard Operating Procedures
SOSC: State On-Scene Coordinator
UC: Unified Command
UMIB: Urgent Marine Information Broadcast

8100.1 Introduction

This section provides guidance for responding to marine fires occurring at any location within the jurisdiction of the USCG Sector Jacksonville Captain of the Port, Federal On-Scene Coordinator. A marine fire within this jurisdiction may involve one or more vessels and or maritime facilities. The fire itself may be the result of an accident or the result of a terrorist attack. If the marine fire is not adequately managed, results may include significant loss of life, disruption of maritime commerce, and a potential release of pollutants into the U.S. navigable waterways.

8200 Policy and Responsibility

The Marine Firefighting Annex to the Area Contingency Plan serves two purposes:

- To protecting lives, property, and the marine environment from damage as a result of marine fires ensuring a return to maritime commerce as soon as possible after an incident.

- This Annex will establish and facilitate a unified response between commercial entities and federal, state and local responders.

8210 Federal Policy

The Coast Guard, under the provisions of the Port and Waterways Safety Act, has broad authority to prevent damage to, or the destruction/loss of, any vessel, bridge or any other structure on or in the navigable waters of the United States. This includes land structures and shore areas immediately adjacent to those waters. This statute, along with the provision of 14 USC 88(b), provides authority for such assistance against fires as the Coast Guard may afford...
with its available resources. This authority is exercised so as not to preempt other jurisdiction or agency fire fighting responsibilities.

This plan is written in accordance with the Coast Guard Marine Safety Manual, (COMDTINST M16000.11) which requires Captains of the Port (COTP) to develop current and effective contingency plans, supported by the port community, providing adequate response by the available federal, state, municipal and commercial resources to fires and other port emergencies.

The Federal Fire Prevention and Control Act of 1974 (PL93-498) declared that fire fighting is and should remain a state and local function. Generally, boundaries extend 3 NM from shore along the ocean. State and local fire fighting jurisdiction extend to these boundaries.

The Oil Pollution Act of 1990 (OPA 90) mandated that owners and operators of vessels and Marine Transportation Related (MTR) facilities must identify response resources with fire fighting capability. 33 CFR Part 154 requires MTR facilities that do not have adequate fire fighting resources located at the facility or which cannot rely on sufficient local fire fighting resources must identify and insure the availability of adequate resources within twenty-four (24) hours. 33 CFR Part 155 requires that vessel owners and operators must identify commercial resources capable of deploying to the port within twenty-four (24) hours.

The U.S. Coast Guard has a clear interest in fires involving vessels and waterfront facilities. Although the Coast Guard is routinely called upon to provide assistance at these fires, it is the responsibility of local authorities to provide and maintain the necessary fire fighting capabilities within U.S. ports and harbors. Additionally, vessel and facility owners or operators are ultimately responsible for the safety of the vessel or facility under their control, which includes providing adequate fire fighting protection. Federal policy dictates that Coast Guard personnel shall not directly engage in fire fighting activities on other than Coast Guard units except when necessary to save a life, or when possible to avert a significant threat, with minimal risk to Coast Guard personnel.

The U.S. Navy and other military units provide in-house fire fighting resources to protect U.S. property within their own facilities. They may enter into reciprocal or interagency agreements with local fire fighting agencies to provide mutual aid; however, this does not relieve local authorities of the responsibility to provide and maintain the primary fire fighting capabilities of the port.

The U.S. Army Corps of Engineers (USACE) is charged with maintaining project depths and dimensions for area navigational channels, which includes keeping channels clear for vessel transit. Should a vessel or facility fire lead to blockage of a navigational channel, the USACE will take appropriate actions to clear the channel. Also, if a vessel fire necessitates the movement or removal of the vessel from the facility, the USACE would contribute to the decision making process on where to move the vessel.

8220 State Policy

Chapter 252 of the Florida Statutes (State Emergency Management Act, as amended) directs the establishment of county emergency management agencies in each county of the State of Florida and authorizes such agencies in the cities of the state. The Act provides for the rendering of mutual aid among political subdivisions, authority for the formation of local disaster preparedness plans, and for authority to utilize the resources necessary to cope with a disaster emergency. The State expects local and city authorities to initially respond to a marine fire casualty, while keeping the Florida Division of Emergency Management (DEM) informed of the situation. When local resources are inadequate to cope with a marine fire, the DEM or Governor may be called upon to coordinate State and/or Federal assistance. The State of Georgia policy for marine fire emergencies is to defer to the expertise of local municipal agencies.

8230 Local Policy
Local jurisdictions in the Jacksonville, Port Canaveral, and Fernandina Area of Responsibility have adopted NFPA 1405 and NFPA 1500 for guidance in response to marine related fires.

8230.1 City Of Jacksonville/Duval County

In accordance with Chapter 674 of the City Ordinance Code, Jacksonville will handle most emergencies and bear the initial responsibility for disaster response and relief. The City will keep the Florida Division of Emergency Management (DEM) informed; and, when local resources are clearly inadequate to handle a disaster situation, the City will request assistance from higher levels of government, both State and Local. Ref: http://www.coj.net/departments/fire-and-rescue/our-divisions/operations-division/marine-unit.aspx.

8230.2 U.S. Naval Installations

Naval Air Station Jacksonville and Naval Station Mayport both have fire departments that are responsible for any incident occurring on the individual bases.

8230.3 U.S. Marine Corps / Army Installation

Jacksonville Fire and Rescue Department is responsible for responding to any incident occurring on Blount Island, to include those that are USMC or Army centric, with Jacksonville Fire and Rescue Station 48 being able to provide the quickest response time. There are 200 fire extinguishers onboard the Installation, and all personnel receive training annually.

a. There is 1 Aqueous Fire Fighting Foam (AFFF) Cart

b. There are 4 firefighting water reels with 1 1/2 hose on the pier.

c. Port Operation Marines are trained by the JFRD/FSCJ Fire Academy to respond to a fire (except for Class 1.1 Explosives) until JFRD arrives.

8230.4 Fernandina Beach/Nassau County

The City of Fernandina and Nassau County are in the process of formalizing a policy for fires involving marine facilities or vessels. The organization utilized is the Incident Command System and includes mutual aid agreements with surrounding county fire response organizations for support as needed. For more information regarding the City of Fernandina and Nassau County fire and rescue please ref: http://www.nassaucountyfl.com/index.aspx?nid=122.

8230.5 Naval Submarine Base Kings Bay/Camden County, GA

Naval Submarine Base Kings Bay, Georgia has its own fire fighting department which is available to assist as necessary in the neighboring city of St. Marys, GA.

8230.6 Port Canaveral

Port Canaveral (Brevard County) has a written plan that defines responsibilities with regard to marine firefighting. The organization utilized is the Incident Command System and includes mutual aid agreements with surrounding county fire response organizations for support as needed. The Port Canaveral Plan is intended For Official Use Only. The file no longer exists – would only be available to those with access to Sector JAX common drive. The Port Canaveral Fire & Rescue has one 40 foot response boat.

8240 Administrative Management of Plan
This plan will be updated and maintained annually or as often as required by new information or substantial changes. An annual meeting will be held between the agencies and organizations to discuss changes to the plan. Suggestions for changes to this plan should be forwarded to the Coast Guard Captain of the Port in Jacksonville. An interagency marine firefighting task force will meet periodically to make updates to the plan.

8250 Exercises

A tabletop or full-scale exercise will be conducted using different marine firefighting scenarios once every three years. The interagency marine firefighting task force will make arrangements for this event. A monthly walk through will occur in each port of visiting cruise ships in order to keep the firefighters familiar with policies and layouts of each vessel.

8250.1 Coast Guard Marine Firefighting Activities

A. Authority.
Among the provisions of the Ports and Waterways Safety Act of 1972 (PWSA) (33 U.S.C. 1221 et seq.) is an acknowledgment that increased supervision of port operations is necessary to prevent damage to structures in, on, or adjacent to the navigable waters of the U.S., and to reduce the possibility of vessel or cargo loss, or damage to life, property, and the marine environment. Section 4202 of the Oil Pollution Act of 1990 (OPA 90) (Public Law 101-380) mandates that the Coast Guard maintain an Area Contingency Plan of pollution response equipment (including firefighting equipment) within each port. These statutes, along with the traditional functions and powers of the Coast Guard to render aid and save property (14 U.S.C. 88(b)), is the basis for Coast Guard fire fighting activities. 42 U.S.C. 1856-1856(d) provides that an agency charged with providing fire protection for any property of the United States may enter into reciprocal agreements with state and local fire fighting organizations to provide for mutual aid. This statute further provides that emergency assistance may be rendered in the absence of a reciprocal agreement, when it is determined by the head of that agency to be in the best interest of the United States.

B. Policy.
The Coast Guard has traditionally provided firefighting equipment and training to protect its vessels and property. Commanding Officers of Coast Guard units (COTP's, Groups, Cutters, Stations) are routinely called upon to provide assistance at fires on board vessels and at waterfront facilities. Although the Coast Guard clearly has an interest in fires involving vessels or waterfront facilities, local authorities are principally responsible for maintaining the necessary firefighting capabilities within U.S. ports and harbors. Additionally, a vessel/facility's owner and/or operator is ultimately responsible for the overall safety of vessels/facilities under their control, including ensuring adequate firefighting protection. The Coast Guard traditionally renders assistance as available, commensurate with each unit's level of training and the adequacy of equipment. The Commandant intends to maintain this traditional "assistance as available" posture without conveying the impression that the Coast Guard is prepared to relieve local fire departments of their responsibilities. Paramount in preparing for vessel or waterfront fires is the need to integrate Coast Guard planning and training efforts with those of other responsible agencies, particularly local fire departments and port authorities. 8-1 CH-4 COTPs shall work closely with other Coast Guard units, municipal fire departments, vessel and facility owners and operators, mutual aid groups, and other interested organizations to ensure an integrated response plan is developed. The COTP shall incorporate firefighting contingency planning in each port's Area Contingency Plan (ACP) for the COTP zone in accordance with this chapter.

C. Restrictions.
1. Operations. In developing a Coast Guard unit's assistance as available posture, consideration should be given to the fire threat level, the jurisdictions involved, the capabilities of local fire departments, the availability of Coast Guard equipment, and the level of Coast Guard training. The functions generally carried out by Coast Guard units in marine fire situations include:
   a. Participating in contingency planning for marine firefighting;
   b. Conducting traditional Coast Guard response measures such as restricting access to the affected area and
controlling marine traffic;
c. Conducting emergent SAR health and welfare and the environment, determine if response actions by the responsible party are adequate, and collecting information for the development of a response plan;
d. Contacting the owner and/or operator to explain the Coast Guard's role and to gather information for response purposes;
e. Based on the preliminary assessment, carrying out first aid mitigation actions commensurate with the level of personnel, equipment and training. First aid mitigation actions are those response actions taken by Coast Guard personnel necessary to address immediate concerns prior to the arrival of local fire services or actions by the responsible party;
f. Monitoring response actions and providing assistance as available. Coast Guard personnel support may include supplying water and logistic CH-4 8-2 activities, notifying affected parties, and coordinating with local emergency services [NOTE: while marine fire fighting is sometimes incidental to SAR activities it is not specifically SAR.]
c. Conducting a preliminary assessment of the incident to: 1) evaluate the magnitude of the threat to the public support to fire fighting forces, cooling exterior bulkheads/walls with hose lines or monitors, or enforcing a safety or security zone at the scene. The program goal is that Commanding Officers of Coast Guard units shall be capable of performing those traditional response measures outlined above. Generally, Coast Guard personnel shall not directly engage in firefighting activities on other than Coast Guard units except when necessary to save a life or when possible to avert a significant threat with minimal risk to Coast Guard personnel.

During marine fire fighting situations involving vessels or waterfront facilities, Commanding Officers of Coast Guard units shall adopt a conservative response posture, and shall focus their actions on those traditional Coast Guard activities listed above not requiring unit personnel to enter into a hazardous environment or be unduly tasked. Any direct involvement by Coast Guard personnel in support of a regular fire fighting agency shall be under the supervision of the Incident Commander who shall be specifically briefed on the training and capabilities of the Coast Guard personnel. Coast Guard personnel shall not engage in independent firefighting operations, except to save a life or in the early stages of a fire to avert a significant threat without undue risk. [NOTE: An exception is firefighting operations within the port area during certain defense readiness conditions.] The above policies notwithstanding, there are occasions which necessitate certain calculated risks be taken to protect the public health and welfare. In such cases, risks to personnel will be reduced to the minimum level Possible consistent with the operational situation and shall not be incurred for purely environmental purposes. The Commandant recognizes the significance of the cautious approach which the Coast Guard has adopted for marine firefighting situations. The high training, equipment, and staffing thresholds will limit the response capability of many units, and in some areas sources of support will not be readily available. As a consequence, there will be occasions when a unit will be unable to mount a complete response to an incident. This circumstance is preferred to attempting a complex and potentially hazardous job without the necessary staffing, training and equipment.

2. Personal Protection And Training. Coast Guard personnel who support waterfront and vessel fire fighting operations shall be properly trained and equipped for the task they are assigned (see section G., pg. 8-30 for training guidelines). Coast Guard involvement shall be kept to a level commensurate with available training, equipment, experience, and leadership.

D. Contingency Planning For Fire Fighting Activities.
1. Introduction. The COTP is faced with a number of responsibilities and decisions when a shipboard or waterfront fire occurs. The decisions made may affect lives, millions of dollars in properties, and the free flow of maritime commerce. The Commandant has determined that contingency plans for fire scenarios, as they involve coordination with private, public and non-federal agencies, shall be developed by making an ACP reference to a stand-alone Marine Firefighting Contingency Plan (MFFCP) or by developing the MFFCP as ANNEX M (reserved) to the ACP. A sample outline for contingency plan sections not covered in the ACP format is presented in Figure 8-1. Contingency plans must be updated in accordance with the ACP schedule and exercised with other interested organizations in order to detect possible problems or deficiencies.

2. Content. The marine fire fighting annex of the ACP shall describe the responsibilities of the lead organizations and the supporting actions of other agencies, including the Coast Guard for various types and locations of fires.
Specifically, the following statement concerning the relationship between local fire fighters and the master of a vessel must be included:

**The presence of local fire fighters does not relieve the master of command of, or transfer the master's responsibility for overall safety on, the vessel. However, the master should not normally countermand any orders given by the local firefighters in the performance of firefighting activities on board the vessel, unless the action taken or planned clearly endangers the safety of the vessel or crew.** The marine firefighting annex must also address how to respond to emergencies that develop during fire fighting operations (e.g., secondary explosions, injuries, trapped personnel, loss of water supply, or vessel drifting or sinking). As in the development of the spill response plan, the marine fire fighting annex must include an assessment of the resource and personnel requirements for each scenario. Shortfalls in meeting these requirements should be noted and alternatives identified.

CH-4 8-4

3. Role of the COTP. All Coast Guard fire fighting forces and equipment within a COTP's Area of Responsibility (AOR) shall be under the control of the COTP. The COTP is responsible for the development of the marine fire fighting annex with input from local response organizations, training of Coast Guard personnel, and coordination of Coast Guard personnel during incident response. The COTP shall act as the liaison between the Coast Guard and other response organizations and the media. Orders from the Incident Commander (as defined in paragraph 8.C.1) for Coast Guard responders shall be passed through and evaluated by the COTP. Only those orders that will not create unwarranted risk for Coast Guard personnel and equipment shall be executed. The COTP shall not assume overall control of fire fighting efforts when appropriate qualified fire officers are present and able to take control.

4. Basic Planning Considerations.

a. Incident Notification. In the process of identifying and contacting parties that may be involved in a marine fire response, the following groups should be considered: 8-5 CH-4

(1) Vessel owners and operators;
(2) Waterfront facility owners and operators;
(3) Local fire departments;
(4) Local police departments;
(5) Emergency service agencies;
(6) Port authorities;
(7) Mayor's or city manager's office;
(8) State fire marshal;
(9) Oil and hazardous substance cleanup companies;
(10) Private fire fighting services;
(11) Towing companies;
(12) Pilots' associations;
(13) Coast Guard Vessel Traffic Services (VTS);
(14) Marine exchange;
(15) Marine salvage companies;
(16) Longshoremen's unions;
(17) Marine chemists;
(18) Railroads;
(19) Utility service companies;
(20) Ship service companies;
(21) Shipyards;
(22) News media representatives;
(23) Aircraft reconnaissance sources;
(24) Self-contained breathing apparatus (SCBA) refilling sources;
(25) Fire fighting supply companies;
(26) Hospital supply companies.
(27) Coast Guard Marine Safety Center Salvage Team CH-4 8-6
(28) Navy Supervisor of Salvage
(29) Local mutual aid systems

b. Communications. Pre-established and effective communications procedures are essential to the execution of a safe and successful fire, rescue, or hazardous materials response. Pre-planning of incident communications procedures will significantly reduce many of the difficulties which may arise during fire fighting operations. Consideration should be given to the following:
   (1) Do the responders have the capability to communicate on common frequencies?
   (2) Have standardized radio procedures and call signs been established?
   (3) Has the effectiveness and limitations of communications been tested during exercises? The primary component of vessel construction is steel, which is an inhibitor of radio communication. A vessel's hard wired communication is not a recommended alternative if the vessel has sustained damage.
   (4) Terminology used must be in common day to day language. Local fire fighters may not understand nautical nomenclature.
   (5) The FCC has designated three frequencies, 154.126, 154.260, and 154.290 MHz, as the Fire Mutual Aid Radio Systems (FMARS) to provide for common communications between firefighting units from different agencies operating at a common incident.
   (6) Given the long duration that can be expected in a vessel fire incident and number of personnel who may be dependent upon portable radio communications, resources for additional radios, spare batteries and recharging units need to have been identified.

c. Actions Upon Notification. Prompt notification of all parties who have a need to know a fire has occurred is of utmost importance. The COTP should use a comprehensive notification list to ensure all parties have been notified. Upon notification of a waterfront fire, the COTP shall immediately determine the vessels in the fire area and the cargoes they are carrying. The COTP shall notify local shipping 8-7 CH-4 agents of their vessels' involvement or possible involvement, and any anticipated need to move them. Coast Guard personnel should contact all vessels both in and outside the fire area and advise the deck watch officer of the situation and of the possible need to get underway.

d. Use Of Cleanup Contractors. The COTP may find that local pollution cleanup contractors are not adequately equipped to conduct activities where fires are involved. Development of this capability should be encouraged, as the spread of flammable liquids may result in the spread of a fire.

e. Involvement Of Pilots. Nearly all state pilotage laws require a pilot to be on board all large vessels moved within a port. The COTP should consider the pilotage laws when determining the need for pilots in emergency situations. Local pilots' associations should be contacted to determine their procedures for handling emergency movement of vessels and response times of their members to representative locations. If a fire is reported on board a vessel or at a grain elevator, oil terminal, or other high-risk facility, other vessels moored at that facility or near the involved vessel may have to be moved immediately, with or without tugs or pilots; this may be accomplished, if necessary, through a COTP Order.

f. Involvement Of Salvors And Marine Chemists. Salvors and marine chemists have a variety of unique skills which may be of use in a marine fire incident. A marine chemist tests the atmosphere of confined and poorly ventilated spaces for concentrations of oxygen and other gases which may be harmful, flammable, or explosive. During a marine fire, marine chemists can monitor conditions of an interior fire area and advise responders of chemical hazards that may be encountered. Commercial salvors operate a variety of specialized equipment to keep a vessel afloat or raise a sunken vessel. Because many salvors deploy their assets within a large area of operations, local salvors may not be able to respond as quickly as a more remotely based company. The U.S. Navy Supervisor of Salvage also maintains personnel and equipment which may be available.

g. Involvement Of Marine Safety Center Salvage Team. The U.S. Coast Guard Marine Safety Center Salvage Team is available 24 hours each day to provide COTP's with technical guidance during marine fire fighting incidents. Staffed with Coast Guard naval architects, the Salvage Team has the experience, training, and tools to help the
COTP manage and minimize the risks associated with the stability CH-4 8-8 issues of the Fire Fighting effort. The Salvage Team can address critical issues that arise during an incident, such as stability of the damaged ship, fire fighting water discipline, lightering and ballasting sequences, and tug requirements. The Salvage Team can also evaluate residual strength, estimate the amount of oil spilled or consumed by the fire, and predict the effects of tides on a stranded vessel. The responsible party and commercial salvor will address these issues as they develop their salvage plan; when it is prepared, the Salvage Team can provide the COTP a crucial independent assessment.

h. Use of Vessel Traffic Services. Where available, Vessel Traffic services can be an indispensable aid to the COTP in the notification of mariners, requesting assistance, and routing port traffic within the COTP's Area of Responsibility (AOR). The incorporation of available VTS resources into marine fire fighting planning and exercises is highly recommended.


a. Implementation. In initiating their response, local fire fighters will likely adopt the Incident Command System (ICS), which is the response management system utilized by most fire departments. A response management system puts into motion set procedures for the activation, utilization, and control of personnel, facilities, equipment, and communications from the initial notification through final resolution of an incident. The response management system concept provides different agencies and organizations a method to accomplish a common goal in a productive, efficient and effective manner through a pre-established but dynamic modular organizational structure. In order to establish a cohesive response, Annex M should detail the integration of the local fire department's response management system with the Coast Guard's Unified Command System.

b. Incident Size-up. Size-up is a continual process at the heart of any response action. Any course of action must be based upon the available facts and probabilities. The size-up consists of six steps to rapidly form a deliberate plan of action: gathering facts, assessing probabilities, determining resources, applying basic fire fighting principles, deciding a course of action, and formulating a plan of operations. Quickly gathering incident information, such as the exact location of the vessel, location of the vessel's master and crew, acquiring the vessel's documents (especially the pre-fire plan), condition of the vessel (including status 8-9 CH-4 of the fuel and ballast tanks and any other flooding and stability issues), type and condition of cargoes on board, and identification of any special equipment needs. Incident probabilities, potential life hazards, explosions, damage, and fire extension must also be assessed. The dynamic nature of any fire response requires constant review, reevaluation, and revision.

c. The Command Post. The first fire officer to arrive on the scene will assume command of the incident and establish a command post. The COTP should encourage local fire officials to predetermine a staging area for every marine terminal in the zone as a part of pre-fire planning. Following the size-up, action planning will result from the Incident Commander's objectives. The command post will keep track of what's been ordered, what's in progress and what has been completed. Unless the complexity of the incident necessitates a communications section, the Command Post will assume this responsibility and coordinate between groups who do not have compatible frequencies. Ideally, each responding agency should have a representative at the command post to aid in coordination of their respective agency with the overall response effort.

d. General Response Management System Organization. There are four organizational divisions which are fundamental to the majority of Response Management Systems: operations, planning, logistics, and finance. The operations section will supervise the actual control of the fire. This includes responsibility for the determination of the location and state of the fire, evaluating exposures, evaluating access and egress routes, laying supply hose lines to the vessel, and accounting for the vessel's crew and passengers. The planning section will collect, evaluate, and disseminate information about the incident, as well as resources used or needed at the scene. The logistics section will maintain the staging area, develop an equipment pool, facilitate equipment resupply, and coordinate with relief agencies as necessary to operate rest and refreshment services for response personnel. The finance section is responsible for managing and tracking all incident costs, and evaluating the financial aspects of the incident. Success in the utilization of a response management system is measured in the clear delineation of roles and
Responsibilities within the chain of command in and between each section. Paramount above all else, however, is the need for active, concise communications between and within each section. CH-4 8-10

8. Port Entry And Movement Of A Burning Vessel.

a. Essential Considerations. The decision to allow a burning vessel to enter or be moved within the port can be a difficult one for the COTP. Various scenarios should be planned to consider the possible outcomes of that decision. The COTP should approach such a situation with the view that the overall safety and security of the port is the key factor. The possibility of a vessel sinking in a channel or spreading fire to other vessels or facilities must be evaluated. The port should not be jeopardized to save a single vessel if the risk is too great. Risk evaluation (and cost-benefit analyses where applicable) should be employed during the planning process. The primary considerations for allowing a burning vessel to enter into, or be moved within, the port are:

   (1) Location and extent of fire;
   (2) Class and amount of cargo involved;
   (3) Possibility of explosion;
   (4) Possibility of sinking/capsizing;
   (5) Hazards to crew or other resources at present location;
   (6) Weather forecast;
   (7) Maneuverability of vessel (Is it a dead ship?);
   (8) Effects on bridges that must be transited;
   (9) Hazards to the environment; and
   (10) Alternatives if the vessel is not allowed entry or movement.

b. Allowing Entry Or Movement Of The Vessel. Before entry or movement is permitted, the vessel should be examined (with other involved agencies, if possible) to determine its condition. Permission for entry or movement may generally be granted when:

   (1) The fire is already contained or under control;
   (2) There is little likelihood that the fire will spread;
   (3) A greater possibility exists that the fire may be extinguished with equipment available in-port before secondary explosion or spread of fire; and
   (4) All appropriate parties, including elected officials, have been consulted. A request for entry into the port by a burning vessel under declaration of "force majeure" should be evaluated under the same previously listed criteria.

c. Additional Considerations Prior To Entry Or Movement. Once the decision to permit entry or movement of the vessel has been made, consideration should be given to:

   (1) A safety broadcast and Notice to Mariners;
   (2) Ordering the movement of other vessels or cargo stored in the area to preclude their involvement; and
   (3) Locating the vessel to facilitate the use of available resources in fire fighting.

d. Liability Factors In Consideration Of Vessel Entry.

   (1) The amounts and types of insurance held;
   (2) Verification of coverage for liability for any oil pollution removal costs, as evidenced by a valid Certificate of Financial Responsibility (COFR);
   (3) Liability insurance for possible damages caused to other property;
   (4) A surety bond, in an amount equal to the estimated cost of removing the vessel from the port.
[NOTE: While these assurances are highly desirable, obtaining them may not be possible before action is required to save the vessel.

c. Considerations For Denying Entry Or Movement.
(1) A danger, greater than the immediate danger to the vessel, crew, or cargo that the fire will spread to other port facilities or vessels;
(2) A likelihood of the vessel sinking or capsizing within a navigable channel;
(3) A likelihood that the vessel may be abandoned as a derelict;
(4) Unfavorable weather or environmental conditions that preclude the safe movement of the vessel or firefighting efforts; and
(5) A risk of a serious pollution incident of oil or hazardous substances. The COTP should, in conjunction with district (m) staff and the 8-13 CH-4 Regional Response Team (RRT), assess pollution risks and determine whether a vessel should be allowed to enter port.

E. Firefighting On Vessels.

1. Importance Of Vessel Location. The success or failure of shipboard firefighting efforts is a condition of the vessel's location; if the vessel is remotely located or otherwise inaccessible, there may be little opportunity to save it. The COTP should coordinate with fire departments, port officials, and other involved agencies to pre-select moorage, anchoring, or grounding sites for burning vessels.

a. Considerations For Moorage Locations.
(1) The flammability of pier structures and contiguous facilities;
(2) Availability of adequate water supply;
(3) Access for response boats and vehicles;
(4) Minimizing the risk of impeding navigation;
(5) Location of low risk to facilities or vessels, consistent with minimizing the distance the vessel must be moved.

b. Considerations For Anchoring Or Grounding Locations.
(1) Bottom material and formation should not pose an undue risk of rupturing the vessel's hull;
(2) Water depth should be shallow enough that the vessel will not sink below the main deck level, yet deep enough that fireboats, salvage barges, and tugs can approach; and
(3) Environmental conditions: strong winds or currents may hamper fire fighting, salvage, or other response efforts. Tidal influences and river level fluctuations must also be considered.

c. Intentional Sinking Of Vessels. As a last resort when a vessel and its cargo are deemed to be a constructive total loss due to a fire, an alternative to further firefighting and salvage efforts may be to sink the vessel. Transportation and disposal of vessels must be accomplished in accordance with COMDTINST 16451.5 series, which provides guidance concerning the Intervention on the High Seas Act (IHSA), and 40 CFR 229.3, which outlines authorities CH-4 8-14 and general procedures. Except in extreme emergencies when vessel disposal is contemplated as a viable option, the vessel's flag state, EPA's Regional Response Team (RRT) representative, and other parties known to have interests which may be affected should be consulted.

8250.2 USCG/EPA MOU
http://ocean.floridamarine.org/acp/jaxacp/Documents/MOU_MOA/EPA_USCG_MOA.pdf

8300 Unified Command/Operations
Section 8300 offers further explanation into the Operations Section during a Marine Fire. Nothing in this section conflicts with NIMS ICS, NRP, NCP, or previous sections of the Area Contingency Plan.

**Incident Commander:**
The Incident Commander is responsible for the overall management of an incident.

**Unified Command**
A marine fire can bring together a variety of government and private entities, and objectives. Although the Coast Guard does not directly conduct fire fighting past the search and rescue phase, it does have a major role in coordination and support. For this reason, a marine fire would most likely be managed under a Unified Command.

**Federal Representative**
The Captain of the Port will serve as the Federal On-Scene Coordinator and the Federal representative to the Unified Command. The Captain of the Port may be the Incident Commander in the absence of a Unified Command. The Captain of the Port can be represented by designated members of Coast Guard Sector Jacksonville.

**State Representative**
The State On-Scene Coordinator will be determined by Florida or Georgia depending on the nature and location of the incident. However, this section of the Area Contingency Plan was drafted with the consideration that a multi-state issue will create a Unified Command with a representative from both Florida and Georgia.

**Local Representative**
The Local On-Scene Coordinator will be the senior fire service officer present in whose jurisdiction the marine fire occurs. The Local On-Scene Coordinator will be the local representative to the Unified Command. The Local On-Scene Coordinator may be the Incident Commander in the absence of a Unified Command.

**Responsible Party, Owner, Operator**
The designated representative Owner/Operator of the affected vessel or facility will be the Incident Commander until formally relieved by the Federal, State, or Local On-Scene Coordinator or when a Unified Command is established. The representative of the Owner/Operator may serve as a member of the Unified Command.

**Determination of Command Post**
The command post will be established as soon as practicable at a location determined by the Incident Commander/Unified Command.

**Determination of Means of Communication**
The Incident Commander/Unified Command will determine the primary means of communication.

**Determination of General Staff**
The Incident Commander/Unified Command will identify and designate personnel to general staff positions as the Operations Section Chief, Planning Section Chief, Logistics Section Chief, Finance Section Chief, and Command Staff as needed.

Initial response operations will be the responsibility of the owner/operator of the vessel or facility. Owners and operators of vessels or facilities must develop their own contingency plans to respond to marine fires before the arrival of government emergency responders.

The Incident Commander / Operation Section Chief shall:
- Implement the initial response based on the fire control plan of the vessel or facility
- Establish communications, both internal and external. Ensure that proper emergency notifications are made. If appropriate, notify the facility to which the vessel is docked, the port authority, and any nearby vessels.
- Control the operation and use of all fixed firefighting systems aboard the vessel or facility.
• Coordinate the efforts of shipboard or facility fire teams responding to the fire.
• Decide if it is necessary to abandon ship/facility. If the crew is ordered to abandon ship/facility, the master or facility supervisor will ensure that the proper procedures are carried out and that the Coast Guard is immediately notified.

Marine Firefighting Operations shall be conducted in accordance Federal, State, and Local Policy as referenced in the Area Contingency Plan Section 8100.

The Operations Section shall be constructed in the following manner.

**Operations Section Chief:**

The Operations Section Chief, a member of the general staff, is responsible for the management of all operations directly applicable to the primary mission. The Operations Section Chief reports directly to the Incident Commander / Unified Command.

Pre-identified government and private agencies that can provide an Operations Section Chief include: Fire Service with jurisdiction, US Coast Guard, Responsible Party, Private Contractor hired by the Responsible Party or the Government.

**Deputy Operations Section Chief (If needed)**

Appointed by the Unified Command or the Operations Section Chief is to serve as the direct assistant to the Operations Section Chief. The Deputy Operations Section Chief is to assist the Operations Section Chief.

Pre-identified government and private agencies that can provide a Deputy Operations Section Chief include: Fire Service with jurisdiction, US Coast Guard, Responsible Party, Private Contractor hired by the Responsible Party or the Government.

**Other Positions**

Appoint as needed.

**Marine Firefighting Priorities**

**Rescue:** Safety of life must always be the first consideration in any fire or emergency situation.

**Exposures:** Firefighting efforts should prevent the spread of fire on or off the vessel. Typical exposures include flammable liquid or gas tanks, open stairways, or any other substance which would accelerate or aid the spread of the fire.

**Containment:** To accomplish proper containment, all closures and generally all ventilation (unless personnel are trapped inside the space) should be secured. Established primary fire, smoke and flooding boundaries. Primary boundaries are critical to the control of a fire. Monitor and cool the boundaries as necessary on all six sides of the fire.

**Extinguishment:** The goal is to stop combustion by disrupting the cycle of the fire tetrahedron. Tactics and agents to be used will be determined by the fuel source, amount of fuel/surface area, and the location of fire.

**Overhaul:** Considerations during overhaul include: hazards from structural conditions at the fire scene, atmospheric conditions, monitor scene to ensure fire will not re-ignite, determination of the fire’s point of origin and source of ignition.

**Ventilation:** Generally, all ventilation on a vessel will initially be secured and all dampeners shut upon receipt of a
fire alarm. The purpose of ventilation shutdown is to decrease the flow of oxygen to the fire area and to begin the containment process. However, this tactic may cause the fire to spread through cableways, false overheads, plumbing, etc. Use of ventilation to aid firefighting efforts should not begin until a coordinated attack is staged.

Security / Site Control: After taking measures to protect life, operational controls must be established to restrict unauthorized access to the emergency site, vessels, facilities, staging areas, and command posts involved with a marine fire emergency.

8310 U.S. Coast Guard

The Coast Guard Captain of the Port (COTP) is responsible for the safety of waterfront facilities, vessels, cargo, and associated personnel within their area of responsibility. The COTP is also responsible for protecting the navigable waters of the U.S. from discharges of oil and hazardous substances.

To carry about this responsibility, the COTP may restrict access, control marine traffic, and conduct emergent SAR activities in the affected area. The COTP may be responsible for notifying concerned parties and coordinating with local emergency services, evaluating the possible threats to public health and the environment and determining if the response actions of responsible parties are adequate.

All Coast Guard firefighting forces, vessels, and equipment within the COTP’s area of responsibility shall be under the control of the COTP. The COTP will act as liaison between the Coast Guard and other response organizations, and will evaluate all orders from the incident commander for Coast Guard responders. Only those orders that will not create unwarranted risk for Coast Guard personnel and equipment will be executed. The COTP shall not assume control of firefighting efforts when the appropriate, qualified fire officers are present and available to take control.

The COTP has the authority to take appropriate action to respond to threatened or actual pollution incidents. All fires create a secondary risk of marine pollution, so the COTP will coordinate and direct all public and private efforts necessary to remove or eliminate the threat. In this case, the COTP will act as the FOSC and initiate the Incident Command System and Area Contingency Plan.

Coast Guard Sector Jacksonville retains copies of Facility Contingency Plans for all of the major facilities located within its area of responsibility. These plans are maintained and updated by the facilities involved that are responsible for their accuracy. All large vessels that call upon the port facilities maintain Fire Safety Plans that are usually located near the quarterdeck (or normal place of embarkation) in a fire-proof container. These vessels are similarly responsible for the plan’s accuracy and availability.

8320 Florida Department of Environmental Protection

The Department of Environmental Protection (DEP) was formed by merging the Departments of Natural Resources and Environmental Regulation. The merger brought most of the state's environmental protection and natural resource management duties under one agency. Within the DEP, the Bureau of Emergency Response was formed by combining the staff from the Department of Natural Resources, Office of Coastal Protection, and the Department of Environmental Regulation, Emergency Response Section.

The mission of the Bureau of Emergency Response (BER) is to respond to any incident or situation that represents an imminent hazard, or threat of a hazard, to the public health, welfare and safety, or the environment, and to protect the public safety and the environment through planning and organization of resources.

A BER representative will respond to any incident in order to protect the public health, welfare and safety, or the environment. The goal of the response is to eliminate the emergency situation which includes containment, site stabilization, source removal, technical assistance, assess damages, sampling, analysis, waste disposal and cost recovery. Most actions will be taken by the responsible party, with BER providing technical assistance as
necessary. When the responsible party is unknown, refuses to cooperate, or the cleanup is inadequate, the BER will take over the cleanup using contracted resources.

Ultimately, the goal of the cleanup is to protect the public's health and the environment, while balancing the cost to the public. Frequently, the quickest, most efficient and cost effective method is to work with the responsible party. In other cases, immediate actions by the BER or local public safety officials may be necessary to ensure that the public safety or environmental concerns will be properly and quickly addressed.

8330 Local Fire Organizations

The local city and county fire departments are responsible for initial response and coordinating all efforts to fight a marine facility or vessel fire within their jurisdiction. They are also responsible for preparing plans and providing resources to fight fires that are likely to occur in their area.

Waterfront facility operators and vessel masters are responsible for the safety of their property, which includes providing and maintaining firefighting equipment and initial response capability appropriate for the perceived threat. The facility managers and vessel masters are also responsible for developing adequate fire prevention and safety programs and see that they properly implement them. In the event of a marine fire, the facility manager or vessel master will be expected to provide prompt notification, as well as detailed information on the layout of their facility or vessel, to emergency response personnel.

In the case of a vessel fire, the presence of local firefighters does not relieve the master of command of, or transfer the master’s responsibility for overall safety on, the vessel. However, the master should not normally countermand any orders given by local firefighters in the performance of firefighting activities on board the vessel, unless the action taken or planned clearly endangers the safety of the vessel or crew.

8400 Planning

Section 8400 offers further explanation into the Planning Section during a Marine Fire. The information in this section does not conflict with NIMS ICS, NRP, NCP, or previous sections of the Area Contingency Plan.

The Incident Commander or Unified Command is responsible for organizing and staffing the Planning Section. It is preferred that these resources are the combined talents of the vessel or facility personnel, along with local firefighting resources, contractor personnel, and federal/state agencies.

Planning Section Chief:
The Planning Section Chief is a member of the General Staff and is responsible for the collection, evaluation, dissemination and use of the information about the development of the incident and the status of resources. The Planning Section Chief reports directly to the Incident Commander / Unified Command.

Pre-identified government and private agencies that can provide a Planning Section Chief include: Fire Service with jurisdiction, US Coast Guard, Responsible Party, Private Contractor hired by the Responsible Party or the Government.

Deputy Planning Section Chief (If needed):
Appointed by the Unified Command or the Planning Section Chief, the Deputy Planning Section Chief, serves as the direct assistant to the Planning Section Chief. The Deputy Planning Section Chief reports to the Planning Section Chief.
Pre-identified government and private agencies that can provide a Deputy Planning Section Chief include: Fire Service with jurisdiction, US Coast Guard, Responsible Party, Private Contractor hired by the Responsible Party or the Government.

Other Positions:
Appoint as needed.

8410 Local Fire Response Organization

The Consolidated City of Jacksonville/Duval County is protected by full-time, professional fire suppression and emergency medical services. Any incident reaching the disaster level, including a marine fire, is covered by the Standard Operating Procedures of the Jacksonville Fire and Rescue Department. These Standard Operating Procedures are frequently updated by the Fire Training Division of that Department. If a situation is so severe that it exceeds the Jacksonville Fire and Rescue Department’s ability to respond, other agencies will be requested to provide assistance, such as the State Division of Forestry, local Navy Fire Departments, County Municipal Fire Departments, nearby city departments, and others.

The Fire Suppression Plan for the City of Jacksonville will be coordinated by the Fire and Rescue Department, under the direction of the Mayor and the Director/Fire Chief. Those persons charged with the various tasks to fight a fire will coordinate their efforts, reporting directly to the Director/Fire Chief with a top priority of saving lives and secondly saving property.

The City of Fernandina and Nassau County are in the process of developing written plans for responding to marine fires. Port Canaveral has had a comprehensive plan for many years. Both municipalities have verbally indicated their intentions to respond to such incidents. The King’s Bay Naval Base fire department is also in the process of developing a written marine firefighting policy for response to U.S. naval vessel fires, and to provide assistance to commercial vessels as requested.

8420 Firefighting Docks/Areas

The Jacksonville Fire and Rescue Department uses an Incident Command System (ICS) to control resources at incidents both effectively and efficiently. ICS is designed to reduce life and property loss through effective organizational control, and it does so by assigning specific duties to specific positions and allowing flexibility for organizational growth if the fire incident escalates. A detailed description of the Incident Command System is contained in S.O.P. #219, which is listed in Appendix 1, Annex E of the Consolidated City of Jacksonville’s Comprehensive Emergency Management Plan.

In a marine fire incident, the Coast Guard COTP will act as the FOSC. The COTP will be specifically responsible for the following:

- Immediately notifying the appropriate fire department when notified by outside sources of a fire.
- Implementing the Sector Jacksonville Emergency Response Bill to the extent deemed necessary.
- Dispatching an OSC with communications gear to the shore command center to coordinate Coast Guard actions on-scene.
- Establishing a waterway safety zone and controlling vessel traffic around the incident area.
- Coordinating the use of Coast Guard firefighting/SAR assets if requested by the local Incident Commander.
- Monitoring the effectiveness of local firefighting efforts by maintaining continuous liaison with the local fire departments.
- Monitoring the marine fire incident for secondary pollution or other hazardous material spillage.

Should a marine fire incident create the threat of or actual spillage of marine pollutants or hazardous materials, the
COTP will implement the Incident Command System and the Oil Spill Contingency Plan.

8420.1 Potential Anchorage/Grounding Sites

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<tr>
<th>PORT</th>
<th>LOCATION</th>
<th>DEPTH</th>
<th>TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jacksonville</td>
<td>Northeast of harbor entrance, circular area with 600 yard radius centered at 30-26-55N, 81-20-47W (Anchorage D)</td>
<td>50'</td>
<td>Sand</td>
</tr>
<tr>
<td>Jacksonville</td>
<td>South of Broward Pt., @ entrance to Dunn Creek, north of Broward Pt. Turn (channel), at 30-24-40N, 81-35-20W</td>
<td>20 - 40'</td>
<td>Mud</td>
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<tr>
<td>Jacksonville</td>
<td>Southeast of Commodore Pt., at 30-18-52N, 81-37-28W (Anchorage A)</td>
<td>30'</td>
<td>Mud</td>
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</table>
Port Canaveral  Northeast of harbor entrance, bounded by  
28-25N, 80-33W; 28-25N, 80-34W;  
28-25.5N, 80-33W; and 28-25.5N, 80-34W

Fernandina  East of Quarantine Reach; approximately  
500 yards north of buoy G “3” at position  
30-42.3N, 81-27.7W.
8420.2 Potential Mooring Sites

<table>
<thead>
<tr>
<th>PORT</th>
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<th>CONSTRUCTION</th>
<th>DEPTH</th>
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<tr>
<td>Jacksonville</td>
<td><strong>JPA Blount Island Terminal</strong> Extreme East End (Berth 35) at 30-23.3N, 81-32.2W</td>
<td>Concrete/Steel</td>
<td>38' Mud/Sand</td>
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<td>Dunn Creek Terminal/Cruise Terminal</td>
<td>Concrete /Steel</td>
<td>37’ Mud/Sand</td>
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<td></td>
<td><strong>JPA Tallyrand Berth #3</strong> Extreme South End at 30-20.8N, 81-37.3E</td>
<td>Concrete/Steel</td>
<td>31’ Mud/Sand</td>
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</table>
Port Canaveral       North Cargo Pier #2       Concrete/Steel       34’
Lat/Long: 28-24-65N / 80-36-93W       Hydrants every 300’       Mud/Sand
Location: South of Rinker Materials
8420.3 Coast Regulated Facilities

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<tr>
<th>Name</th>
<th>Primary Unique_Id</th>
<th>Description</th>
<th>Type</th>
<th>Sub Type</th>
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<tr>
<td>BP</td>
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<td>OPA 90 / MTSA - Fuel distributor</td>
<td>Waterfront Facility</td>
<td>Bulk Oil (PETROLEUM) Storage / Transfer; MARPOL Reception</td>
<td>FL Yes</td>
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<td>Center Point Terminal Company - Jax</td>
<td>JACSEC017</td>
<td>FSP, FRP, DPS</td>
<td>Waterfront Facility</td>
<td>Bulk Oil</td>
<td>FL Yes</td>
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<td>Chevron</td>
<td>JACSEC003</td>
<td>OPA 90 / MTSA - Fuel distributor</td>
<td>Waterfront Facility</td>
<td>Bulk Oil (PETROLEUM) Storage / Transfer; MARPOL Reception</td>
<td>FL Yes</td>
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<td>Commodities Point Terminal</td>
<td>JACSEC510</td>
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<td>Waterfront Facility</td>
<td>MARPOL Reception</td>
<td>FL No</td>
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<td>Florida Petroleum Corporation</td>
<td>JACSEC005</td>
<td>OPA 90 / MTSA, Fuels Tug boats and Rec boats</td>
<td>Waterfront Facility</td>
<td>Bulk Oil, Bulk Oil (PETROLEUM) Storage / Transfer</td>
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<td>FPC</td>
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<td>Waterfront Facility</td>
<td>Bulk Oil</td>
<td>FL No</td>
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<td>Georgia Pacific</td>
<td>JACSEC006</td>
<td>OPA 90 / MTSA Fuels Power Plant</td>
<td>Waterfront Facility</td>
<td>Bulk Oil</td>
<td>FL Yes</td>
</tr>
<tr>
<td>Hess</td>
<td>JACSEC001</td>
<td>OPA 90 / MTSA - Fuel distributor</td>
<td>Waterfront Facility</td>
<td>Bulk Oil</td>
<td>FL Yes</td>
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<tr>
<td>JAXPORT: Blount Island</td>
<td>JACSEC110</td>
<td>Jacksonville Port Authority: Blount Island Marine</td>
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<td>MTSA-regulated port</td>
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<td>JEA Kennedy</td>
<td>JACSEC008</td>
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<td>North Florida Shipyard</td>
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<tr>
<td>NuStar</td>
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<td>Owens Corning</td>
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<td>Rayonier</td>
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<td>RossTenn CP, LLC</td>
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</table>

8430 Response Management System

For a marine fire incident, the COTP will implement the Sector Jacksonville Emergency Response Bill to initially confront the problem.

Response to a marine fire will require the integration of the involved parties into a Unified Command. In that the Jacksonville Area Committee has adopted the ICS/UC structure for response, the establishment and accomplishment of common goals should be more efficient. A diagram of the Response Organization is shown at the beginning of this Annex.
As the usual first response agency on scene, the fire department will establish a command post and assume command of the situation. The four organizational divisions of the Unified Command Structure will be under the supervision of the Incident Commander, and be responsible for the following general tasks:

**Operations:** Determines the location and state of the fire, evaluating exposures, evaluating access and egress routes, laying supply hose lines to the vessel or facility, and accounting for response members. The Operations Section supervises the actual control of the fire.

**Planning:** Collects, evaluates and disseminates information about the incident, as well as resources used or needed at the scene.

**Logistics:** Maintains the staging area, develops an equipment pool, facilitates equipment re-supply and coordinates with relief agencies as necessary to operate rest and refreshment services for response personnel.

**Finance:** Manages and tracks all incident costs and evaluates the financial aspects of the incident.

### 8430.1 ICS Forms

http://www.fema.gov/forms/job-aids-tools-templates

# 8440 Movement of a Burning Vessel

Under the authority of Executive order 10173, the Coast Guard may supervise or control the movement of any vessel within the territorial waters of the United States when such action is necessary to secure a vessel from damage or injury, or to prevent damage to a waterfront facility. The Commandant has delegated this authority to the COTP (per 33 CFR 6), who may promulgate orders to move vessels for preventive or reactive reasons. Such orders, if issued, would have to be coordinated with all involved parties, including industry leaders, the Incident commander, the Army Corps of Engineers, and other response agencies. A vessel should not be moved if the risk to personnel, property, and safety of the port would be considered too high or unacceptable. A burning vessel may be moved, however, if a serious risk to people, property, and commerce exists, and it appears that moving the vessel would minimize or eliminate the risk.

Prior to moving a burning vessel in port, the following factors should be considered:

- Hazards posed to people, property, and commerce at the vessel’s present site, versus those at a proposed location.
- Class and nature of the cargo.
- Possibility of Explosion.
- Possibility of the vessel sinking, capsizing, or blocking a channel or berth.
- Location and extent of the fire.
- Route over which the vessel must travel.
- Availability of an alternate site.
- Maneuverability of the vessel.
- Effect on bridges to be transited.
- Weather, present and forecasted.
- Risk of pollution
- Advantages gained by moving the vessel.
• Agreement with response agencies and involved parties.
• Legal considerations (See below).

The Federal Tort Claims Act (28 USC 2671, et seq.) exempts the U.S. government from liability where the loss or damage results from the exercise of a discretionary government function. For example, if a fire causes the government to move a vessel from one location to another, the loss of time or the damage caused by the operation in obedience to the movement order cannot be made the basis of a successful claim against the government. However, if the owner or master of the vessel refuses to comply with the order, and the COTP directs the movement of the vessel to a new location, and the vessel is damaged through negligence in the towing operation, there would be a basis for claim against the Government (See Dalehite et al. v. United States, 346 U.S. 15 (1953).

Within the Jacksonville COTP area of responsibility, there are some pre-designated sites for mooring, anchoring, or grounding a burning vessel. These sites are not all-inclusive, and actual locations would have to be decided upon based on the factors affecting a specific vessel fire. When selecting a location to place a burning vessel, the following criteria should be considered, as a minimum:

• Water depths should be shallow enough that a vessel would not sink below the main deck level, but deep enough to allow fire boats and salvage units alongside.
• The site should be located outside of the main channels so that navigation would not be impeded.
• The site bottom should be soft and reasonably level.
• The site should be as far away as feasible from vulnerable facilities or vessels yet close enough so as to minimize the distance that the vessel would have to be moved.
• The site should be such that pollution mitigation or recovery efforts would be possible, if not enhanced. The ability to rig a fire boom around the vessel should also be considered.
• Availability of adequate water supply and other firefighting resources.
• See MFF Plan 8420.1 and 8420.2.

8450 Environmental Evaluation of Strategies
Potential impacts to natural resource systems such as wetlands, rivers, beaches, wildlife habitat, living marine resources, potable water supplies, historical resources, and parks as a result of movement of a burning vessel will be evaluated on an individual basis.

8500 Operations

8510 Waterfront Facilities, Marinas and Docks
There are numerous waterfront facilities within the Jacksonville COTP zone of responsibility, and each presents its own fire hazards depending on the commodities handled. Of particular concern are the facilities that handle petroleum products, explosives, or other hazardous materials, as these have the greatest potential for creating disastrous fires.

Marine facility fires will be handled by the assigned local fire department. The COTP will be primarily concerned with establishing a waterside security zone around the facility and keeping vessel traffic clear of the area. The COTP will assign local Coast Guard assets to assist with fighting the fire, should the Incident Commander request Coast Guard Assistance.

It is likely that a marine facility fire could cause a pollution incident, depending on the commodity involved and the scope of the fire. The COTP must be aware of this potential and monitor the scene for development. Should a
pollution incident occur during a marine facility fire, the COTP will initiate the pollution control plan and establish the Unified Command System.

Reference Hazardous Waterfront Facilities, Marinas and Docks Listing
Reference Marina Fire ICS 201

8520 Tank Vessel, Barge and Tank Farms

Due to the large quantity and highly flammable nature of the cargo, fires aboard tank vessels present the greatest fire hazard to the COTP. Under the worst conditions, an oil cargo fire will grow rapidly and intensely, causing considerable structural damage to the vessel and surrounding areas. This damage could lead to a catastrophic oil spill, which creates both a pollution hazard and a means for spreading the fire to previously non-affected areas. The intense heat generated by the fire would inhibit fire fighting efforts, as it would be difficult for both land and marine based individuals and equipment to approach the fire’s source. This heat also creates the threat of spreading the fire to other vessels and facilities, especially under high wind conditions.

Speed of reaction to this type of fire is critical. The local assigned fire department would have primary responsibility for combating the fire, but it is likely that they would request all help that is available through their mutual aid agreements. The COTP would have the responsibility of establishing a safety zone to control traffic near the vessel or facility, and should consider utilizing Coast Guard vessels and other resources to assist with firefighting efforts. In anticipation of the oil pollution that is likely to result from this type of fire, the COTP should establish the Unified Command System and activate the pollution contingency plan without hesitation.

In most cases, it is desirable to keep the vessel at its berth so that access to the fire by land based assets is maintained. However, in circumstances where the fire creates an unacceptable danger to its surroundings, the vessel may have to be moved or relocated. The decision to move a burning vessel is a complicated one, involving many factors discussed earlier in this Annex. Additionally, it is doubtful that towing vessels would be able to make a tow fast to an intensely burning vessel. In all cases, the decision would require input from the Incident Commander, COTP, the Army Corps of Engineers, and other concerned parties.

Reference Tank Farm Fire ICS 201

8530 Cruise/Cargo/Recreational Vessel Underway

In vessels other than those that carry petroleum products in bulk, the primary fire hazard would be the main engine spaces. While this threat poses great risk to the vessel itself, the overall hazard to its surroundings is considerably less than with tank vessels. Most vessels are fitted with equipment that would help inhibit or extinguish engine space fires, and the availability of shore based fire fighters to augment the shipboard personnel in a direct attack would usually limit the extent of the fire to the vessel itself.

A cargo fire aboard a freight vessel would depend on the nature and composition of the cargo, which varies with the type of vessel involved. A vessel that carries gravel, for example, would pose a lesser cargo fire hazard than a RO-RO vessel carrying vehicles. Some vessels, such as modern container ships, carry wide variety of products in close proximity to each other, including hazardous materials. If a freight vessel fire involves cargo, it is important to determine the composition of the cargo so that a proper fire threat assessment can be made.

Initial response to any vessel fire in port will be made by the local, responsible fire department. The COTP will be responsible for establishing a waterfront security zone, controlling vessel traffic, and making Coast Guard responders
available, if needed. Should a hazardous materials or pollution incident develop as a result of the fire, the COTP will implement the Unified Command System and response plans.

8540 Cruise/Cargo/Recreational Vessel Docked

Passenger and casino gaming vessels regularly call upon ports within the Jacksonville COTP area of responsibility. Historically, fires have taken place all too frequently on passenger vessels, due to a wide variety of causes. Regardless of cause, the primary focus of fire fighting efforts would be isolation of the fire and the rescue of passengers and crew.

As is the case with all in-port emergencies, the local fire department would initially respond to a passenger ship fire. In addition to establishing a safety zone and controlling traffic, the COTP should mobilize as many water assets as are available to the scene as there would likely be many SAR cases from people jumping overboard. There would likely be many casualties involved, so both the Incident Commander and the COTP should see to it that medical response personnel are mobilized to the scene.

If the burning passenger vessel is offshore, the COTP would be in charge of directing the SAR efforts of all available assets, with the focus on saving lives first and property second. If the vessel is unable to maneuver, efforts would be made to tow the vessel closer to shore to facilitate firefighting or salvage operations.

Reference Cruise Terminals listing
Cruise Ship/Cargo Vessel Fire Docked ICS 201
Ed Austin/Dames Point Cruise Terminal Map
Port Canaveral Harbor Map

8550 Naval Vessel/Submarine

U.S. Naval vessels have large numbers of personnel assigned to perform firefighting duties in the event of a shipboard fire. These fire parties would be augmented by personnel from other naval vessels, base shore responders, and local fire departments in port.

If a naval vessel were to catch fire in port, the COTP would establish a safety zone around the area and offer assistance, if requested. Because of the possibility of explosion, the COTP may be called upon to direct the waterfront evacuation of threatened areas. Also, if a naval vessel fire creates a pollution incident, the COTP should initiate the area contingency plan for pollution.

Nuclear-powered submarines pose a particular hazard when involved with a fire. For this reason, only trained members of the King’s Bay Naval Base Fire Department will be responding to fires of that nature. Other agency responses will be limited to providing assistance as requested (e.g. establishing and enforcing a Safety Zone).

8560 MARAD/MSC Ships with Military Cargo

Vessels in the Maritime Pre-positioned Ship (MPS) program regularly dock at the Blount Island Marine Corps Terminal to discharge and load military equipment and ammunition. In addition to the normal fire hazards associated with large ships, the MPS vessels have the additional risk of cargo explosion, with an assumed explosive arc (ESQD) of 4,400 feet. To prepare for this contingency, the MPS vessels have their own specific fire and safety plan for the Port of Jacksonville, a copy of which is kept at Coast Guard Sector Jacksonville (Tab A to Appendix 5 to Annex K of the Jacksonville MSO OPLAN 1-91 is the MPS in-port fire fighting plan). An integral part of the plan calls for having tugboats standing by to tow the vessel away in an emergency (the current agreement at Blount Island requires Navy tugs to stand by during loading or offloading of explosives).
If a fire were to occur on an MPS vessel, speed of response would be paramount. The Blount Island Terminal Fire Department would be the initial responder to assist with shipboard fire fighting efforts. The stand-by Navy tugs have high-capacity fire monitors, which would be available to spray large amounts of water on a fire well in advance a fire boat’s arrival. The COTP would establish a security and/or safety zone around the Blount Island area and issue an Urgent Safety Broadcast declaring the river closed. The COTP should also request Coast Guard boats from Sector Jacksonville to assist with fire fighting efforts.

Although tugs would be available to tow the MPS vessel away from the dock, the preferred method of attacking the fire would be to keep the vessel pier side. This method allows responders easy access to the vessel and its spaces, whereas towing the vessel would remove it from shoreside support. If the vessel were to be towed, present plans indicate that it would preferably be taken to sea and anchored in the vicinity of anchorage D (See DMA chart 11490). The decision to move the vessel would have to take into account the ten mile transit through populated areas of the St. Johns River. If that option presents an unacceptable risk, the COTP may be involved in efforts to evacuate the areas surrounding the Blount Island terminal. However, if a fire were to break out on the Blount Island facility itself, the stand-by tugs would be used to remove the MPS vessel.

Reference MARAD/MSC Ship Fire ICS 201
Blount Island Marine Terminal Map

8600 Logistics

The local fire departments within the COTP’s area of responsibility maintain extensive lists of providers and suppliers of firefighting equipment, both locally and outside of city, county, or state limits. As an example, a tank farm fire occurred in the Port of Jacksonville in January 1993. The fire lasted over a week, and during that time period firefighting supplies and equipment were delivered from as far as Tennessee to the Port. The local Incident Command System provides for a Logistics Officer, whose primary duty is to procure and stage equipment for the incident. Should a marine fire grow in size and scope, the Incident Commander would direct the Logistics Officer to gather and stage more equipment or resources. Most of the response would be provided through pre-arranged mutual aid agreements or a pre-identified list of suppliers. In Jacksonville, this list is updated and maintained by the fire department.

The quickest and most effective way to mobilize responders to the scene of a marine fire is to use the 911 system. Local Standard Operating Procedures already specify who and what equipment should respond to an incident, dependent on the nature of the emergency. The 911 system is computerized; when an emergency is called in, the computer will immediately and automatically dispatch the pre-designated responders via computer. It is for this reason that the 911 phone number is preferred over calling the responders individually.

Once the Incident Commander is on scene and able to evaluate the situation, he can mobilize other assets such as Hazardous Material Contractors as needed to meet the requirements of the incident. Reference 9200 Appendix for phone numbers of non-emergency contacts.

8600.2 Marine Firefighting Resources

Reference plans for Port Canaveral, Duval County, and Fernandina Beach Fire and Rescue.

8600.3 IC/UC Organization Chart

Incident Command System
To standardize response management within the marine safety field, the Coast Guard has adopted the National Incident Management System (NIMS) based Incident Command System (ICS). Where appropriate, the FOSC shall establish a unified command consisting of the FOSC, the State, and the Responsible Party. The FOSC is responsible for assigning individuals from within the response community (Federal, State, local or private), as necessary, to fill the designated positions. It should be noted, however, that one individual may fill several of the designated positions. These assignments will be predicated on the nature of the spill and the need for extensive manning. A major advantage of the ICS organization is the ability to expand and contract organizationally as required by the incident. For some incidents only a few of the organization’s functional elements may be required. For larger or more complicated responses, additional positions exist within the ICS framework to meet virtually any need. The ICS organization is built around five major functions that are applied on any incident, large or small. These functions are the Incident Command, and the Operations, Planning, Logistics and Finance Sections. See Figure 1000-B Standard Incident Command System. Refer to the Incident Management Handbook (IMH USCG COMDTPUB P3120.17) for the Incident Command System prepared by USCG, Office of Response (G-RPP) for specific information on all duties and positions.
Standard Incident Command System

Fig. 1000-B
Northeast and Eastern Central Florida Area Contingency Plan

Annex 9000:
Appendices
This Annex is organized as follows:

Appendix 9100  **Emergency Notification**
- 9110  Required Emergency Notifications
- 9120  Federal On-Scene Coordinator’s Notifications
- 9130  Federal Agency Points of Contact
- 9140  State Agency Points of Contact
- 9150  Local Agency Points of Contact
- 9160  Additional Agencies
- 9170  Recommended Oil Spill Report Form
- 9180  Level 1 and 2 Trauma Centers

Appendix 9200  Personnel and Services Directory

Appendix 9300  Incident Response / Incident Action Plan
- 9310  Oil Spill Incident
- 9320  HAZMAT Incident
- 9330  Marine Fire Incident
- 9340  Marine Salvage Incident
- 9350  Radiological Incident
- 9360  Terrorism Incident
- 9370  Biological Incident
- 9380  Incident Action Plan (IAP) Template

Appendix 9400  **Area Planning Documentation** (FOUO)
- 9410  Spill / Release History
- 9420  Planning Factors and Assumptions
- 9430  Area Risk Assessments
- 9440  Planning Scenarios
- 9450  Contingency Planning for Group V Oils

Appendix 9500  **List of Agreements**
- 9510  Federal MOUs
- 9520  State MOUs
- 9530  Local MOUs

Appendix 9600  **Conversions**
- 9610  Sheens
- 9620  Film & Emulsions
- 9630  Temperature Conversions
- 9640  Chemistry Conversions
- 9640.1  DOT Class Hazards
- 9640.2  Specific Gravity
- 9640.3  Vapor Density
- 9640.4  pH

Appendix 9700  **Response References**
- 9710  Response Strategies & Sensitive Area Maps
  - 9711  Fast Water Containment

Appendix 9720  Technical References
- 9721  **Incident Management Handbook**
- 9722  ICS Forms and Job Aids
- 9723  **CHRIS Manual**
- 9724  **Joint Information Center Manual**
- 9725  **Joint Information Center Model**
- 9726  **NSF Information Kit**
- 9277  **RRT I/II Oil Spill Info Flyers**
- 9278  **Public Feedback Supplement**
- 9279  **Liaison Manual**
- 92710  **Salvage and Emergency Response Team (SERT) Plan**
- 92711  **Acronyms**
- 92712  **NPFC User Reference Guide**
- 92713  **FFARM**
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<td>9910 Deepwater Horizons Lessons Learned</td>
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9100 Emergency Notification Contacts

The purpose of this Emergency Notification List is to centralize information about agencies, groups, trustees, organizations, and points of contact that play a role in environmental response. This Appendix serves as a job aid for any person seeing and/or receiving first notification of an oil spill, hazardous material release, marine fire, vessel salvage, and/or Weapons of Mass Destruction event (detonation). All federal, state, and local agencies are hereby reminded that “cross notification” is highly desired as redundant means assuring the entire response community is activated.

This Appendix is organized as follows:

9110 Required Emergency Notifications  
9120 Federal On-Scene Coordinator’s Notifications  
9130 Federal Agency Points of Contact  
9140 State Agency Points of Contact  
9150 Local Agency Points of Contact  
9160 Additional Agencies  
9170 Recommended Oil Spill Report Form  
9180 Florida Level 1 & 2 Trauma Centers

9110 Required Emergency Notifications

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<th>Entity Notified</th>
<th>Point of Contact</th>
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<tr>
<td></td>
<td></td>
<td>NATIONAL RESPONSE CENTER</td>
<td>(800) 424-8802</td>
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<td></td>
<td>USCG SECTOR JACKSONVILLE COMMAND CENTER</td>
<td>(904) 564-7511</td>
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<td></td>
<td>STATE OF FLORIDA STATE WARNING POINT</td>
<td>(800) 320-0519</td>
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<td>STATE OF GEORGIA DEPARTMENT OF NATURAL RESOURCES (DNR)</td>
<td>(404) 656-4713</td>
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<td>MUNICIPAL FIRE DEPARTMENT HAZARDOUS MATERIALS RESPONSE (above the RQ)</td>
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9120 Federal On-Scene Coordinator’s Notifications

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<td>NATIONAL RESPONSE CENTER</td>
<td>(800) 424-8802</td>
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<td>STATE OF FLORIDA STATE WARNING POINT</td>
<td>(800) 320-0519</td>
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<td>STATE OF GEORGIA DEPARTMENT OF NATURAL RESOURCES (DNR)</td>
<td>(404) 656-4713</td>
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### 9120 Federal On-Scene Coordinator Notifications (cont.)

#### Notifications to Coast Guard Commands

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<td></td>
<td></td>
<td>SEVENTH COAST GUARD DISTRICT MARINE SAFETY DIVISION</td>
<td>(305) 415-6860</td>
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<tr>
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<td>SEVENTH COAST GUARD DISTRICT OPERATIONS CENTER</td>
<td>(305) 415-6800</td>
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<td>SEVENTH COAST GUARD DISTRICT LEGAL OFFICE</td>
<td>(305) 415-6950</td>
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<td></td>
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<td>NATIONAL STRIKE FORCE COORDINATION CENTER</td>
<td>(252) 331-6000</td>
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<td>NATIONAL STRIKE FORCE GULF STRIKE TEAM</td>
<td>(251) 441-6601</td>
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<td>COMMANDER, COAST GUARD ATLANTIC AREA PUBLIC AFFAIRS</td>
<td>(757) 398-6608, (757) 398-6436</td>
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<td>SURFACE FORCES LOGISTICS CENTER (MAINTENANCE AND LOGISTICS COMMAND ATLANTIC (tcp)). OOD</td>
<td>1-800-336-7430, (443) 865-7324</td>
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<td>LANTAREA OPERATIONS CENTER (24 hr.)</td>
<td>(757) 398-6700</td>
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<td>DISTRICT FIVE OPERATIONS CENTER (24 hr.)</td>
<td>(757) 398-6390, 6231</td>
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<td>COMMANDER, SECTOR JACKSONVILLE COMMAND CENTER</td>
<td>(904) 564-7511, 7512</td>
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<td>MARINE SAFETY DETACHMENT CANAVERAL (Port Canaveral, FL)</td>
<td>(321) 784-6780</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MARINE SAFETY DETACHMENT SAVANNAH, GA</td>
<td>(912) 652-4371, (912) 652-4353</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AIR STATION SAVANNAH</td>
<td>(912) 652-4646</td>
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<tr>
<td></td>
<td></td>
<td>STATION PORT CANAVERAL</td>
<td>(321) 868-4200, 4206, (407) 853-7601</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STATION MAYPORT STA COMMS STA OOD</td>
<td>(904) 564-7590, 7589, (904) 564-7592, (904) 564-7599</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STATION PONCE INLET</td>
<td>(386) 428-9085</td>
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### Notifications to Resource Trustees

<table>
<thead>
<tr>
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<tr>
<td></td>
<td></td>
<td>U.S. Department of the Interior (DOI)</td>
<td>(202) 208-3100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Office Env. Policy &amp; Compliance</td>
<td></td>
</tr>
<tr>
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<td>NOAA - U.S. Department of Commerce (DOC)</td>
<td>(202) 4-0690</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOAA Headquarters</td>
<td>(727) 551-5707</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Southeast Fisheries (St Petersburg, FL)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Florida Department of Environmental Protection</td>
<td>(904) 256-1700</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(407) 897-4100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Florida Fish and Wildlife Conservation Commission</td>
<td>(727) 896-8626</td>
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<tr>
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<td>Wildlife Alert Hotline</td>
<td>(888) 404-3922</td>
</tr>
<tr>
<td></td>
<td></td>
<td>State of Georgia Department of Natural Resources</td>
<td>(404) 656-4713</td>
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### 9130 Federal Agency Points of Contact

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<td>U.S. EPA (Atlanta, GA)</td>
<td>(404) 562-9565</td>
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<tr>
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<td></td>
<td></td>
<td>NRC @ night</td>
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<td>NOAA HAZMAT (Seattle, WA)(24hr #)</td>
<td>(206) 526-6317</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOAA Scientific Support Coordinator</td>
<td>Cell (305) 530-7931</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(954) 684-8486</td>
</tr>
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<td>U.S. Fish and Wildlife Service (FWS)</td>
<td>(727) 896-8626</td>
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<td></td>
<td>NATIONAL PARK SERVICE</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Regional Emergency Operations Chief</td>
<td>(850) 766-4398</td>
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<tr>
<td></td>
<td></td>
<td>24 hour Emergency Operations Center</td>
<td>(540) 999-3422</td>
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<td>Southeast Regional Office (Atlanta)</td>
<td>(404) 565-3100</td>
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<td></td>
<td></td>
<td>Additional contact number</td>
<td>(888) 246-4335</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ARMY CORPS ENGINEERS</td>
<td>(904) 232-2233</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U.S. NAVY Mayport Quarter Deck</td>
<td>(904) 270-5401</td>
</tr>
<tr>
<td></td>
<td></td>
<td>U.S. Marine Corps Blount Island Command (LE Contact)</td>
<td>(904) 696-5055, (904) 714-6105</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NASA Kennedy Space Center</td>
<td>(321) 867-5000</td>
</tr>
<tr>
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<td></td>
<td>Federal Emergency Management Agency</td>
<td>(800) 621-3362</td>
</tr>
<tr>
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<td></td>
<td>Customs and Border Protection –</td>
<td>(904) 360-5020</td>
</tr>
<tr>
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<td></td>
<td>Jacksonville, FL</td>
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## 9140 State Agency Points of Contact

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<tbody>
<tr>
<td></td>
<td></td>
<td>State of Florida Department of Natural Resources ATLANTA*</td>
<td>(800) 241-4113 (386) 758-0525</td>
</tr>
<tr>
<td></td>
<td></td>
<td>State of Florida Fish and Wildlife Conservation Commission JACKSONVILLE</td>
<td>(904) 359-3886 (800) 404-3922 24hr</td>
</tr>
<tr>
<td></td>
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<td>State of Florida Fish and Wildlife Conservation Commission TITUSVILLE</td>
<td>(800) 404-3922 24hr (352) 732-1225</td>
</tr>
<tr>
<td></td>
<td></td>
<td>State of Florida Department of Environmental Protection JACKSONVILLE*</td>
<td>(904) 256-1700 x1528</td>
</tr>
<tr>
<td></td>
<td></td>
<td>State of Florida Department of Environmental Protection ORLANDO</td>
<td>(407) 894-7555 (407) 897-4341</td>
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<tr>
<td></td>
<td></td>
<td>State of Florida Department of Health (through State Warning Point)</td>
<td>(800) 320-0519</td>
</tr>
<tr>
<td></td>
<td></td>
<td>State of Florida STATE WARNING POINT</td>
<td>(800) 320-0519</td>
</tr>
<tr>
<td></td>
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<td>Florida Department of Transportation Maintenance</td>
<td>(904) 360-5200 x5620</td>
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## 9150 Local Agency Points of Contact

### Nassau County

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<tbody>
<tr>
<td></td>
<td></td>
<td>Nassau County Emergency Management</td>
<td>(904) 548-4094 x4095</td>
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<td>Nassau County Sheriff</td>
<td>(904) 225-5174</td>
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<tr>
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<td>Nassau County Sheriff MARINE UNITS</td>
<td>(904) 225-5174</td>
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<td></td>
<td>Fernandina Beach Fire Department</td>
<td>(904) 277-7311</td>
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<td>Fernandina Beach Police Department</td>
<td>(904) 277-7342</td>
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### Duval County

<table>
<thead>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Jacksonville Fire and Rescue Department Dispatch Center NON-EMERGENCY LINE</td>
<td>(904) 630-0434</td>
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<tr>
<td></td>
<td></td>
<td>Jacksonville Fire and Rescue Department MARINE UNITS</td>
<td>(904) 630-0434</td>
</tr>
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<td>Jacksonville Fire and Rescue Department (HAZMAT - Station 7)</td>
<td>(904) 630-0434</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Jacksonville Sheriff's Office NON-EMERGENCY LINE</td>
<td>(904) 630-0500</td>
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<tr>
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<td>Jacksonville Sheriff's Office MARINE UNITS</td>
<td>(904) 630-0500</td>
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<td>City of Jacksonville Public Works Department</td>
<td>(904) 255-8786</td>
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<tr>
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<td></td>
<td>Local Emergency Planning Committee, District IV</td>
<td>(904) 279-0880</td>
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### Volusia County

<table>
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<tbody>
<tr>
<td>☐</td>
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<td>Volusia County Emergency Management</td>
<td>(386) 254-1500</td>
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<td>☐</td>
<td></td>
<td></td>
<td>Volusia County Sheriff</td>
<td>(386) 248-1777</td>
</tr>
<tr>
<td>☐</td>
<td></td>
<td></td>
<td>Daytona Beach Fire Department</td>
<td>(386) 671-4000</td>
</tr>
<tr>
<td>☐</td>
<td></td>
<td></td>
<td>Daytona Beach Police Department</td>
<td>(386) 671-5102</td>
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### Brevard County

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<tr>
<th>☑️</th>
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<tr>
<td>☐</td>
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<td>Brevard County Emergency Management</td>
<td>(321) 637-6670</td>
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<td>☐</td>
<td></td>
<td></td>
<td>Brevard County Sheriff</td>
<td>(321) 633-7162</td>
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<td>Port Canaveral Volunteer Fire Dept.</td>
<td>(321) 783-4424</td>
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<tr>
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<td>Station 52</td>
<td>(321) 783-4777</td>
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<td>☐</td>
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<td>Station 53</td>
<td>(321) 868-3251</td>
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<td></td>
<td>Cocoa Beach Police Department</td>
<td>(321) 633-1766</td>
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<td>Brevard County Warning Point</td>
<td>(321) 637-4072</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Coordinator</td>
<td>(321) 298-3233</td>
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### 9160 Additional Agencies

See Appendix [9200 Personnel and Services](#) Directory if additional agencies need to be contacted.
9170 Recommended Oil Spill Report Form

This form has been developed by the Area Planning Committee to assist agencies and reporting parties in gathering, reporting, and documenting the information most commonly needed in emergency reports. The use of this form is not mandatory; all entities are free to use whatever report/data-capture form they deem advisable.

<table>
<thead>
<tr>
<th>REPORT DATE</th>
<th>INCIDENT DATE</th>
<th>TIME</th>
<th>REPORT MADE / TAKEN BY</th>
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<table>
<thead>
<tr>
<th>REPORTING PARTY (Person name.)</th>
<th>RESPONSIBLE PARTY (Name of owner, operator, etc.)</th>
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<table>
<thead>
<tr>
<th>JOB TITLE</th>
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<thead>
<tr>
<th>ORGANIZATION (Agency, Company, Home Owner, etc.)</th>
<th>ORGANIZATION (Company, Home Owner, etc.)</th>
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<table>
<thead>
<tr>
<th>ADDRESS</th>
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<table>
<thead>
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<th>PHONE</th>
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**Incident Information**

<table>
<thead>
<tr>
<th>INCIDENT LOCATION (Geographic/ Lat-Lon / Street Address)</th>
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</table>

**PRODUCT (Type of Pollutant, Diesel/Gasoline/Oil/Sewage, etc):**

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<thead>
<tr>
<th>GASOLINE</th>
<th>DIESEL</th>
<th>HEAVY OIL</th>
<th>OTHER (DESCRIBE):</th>
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<table>
<thead>
<tr>
<th>DESCRIPTION OF SUBSTANCE (Color, Density Odor, etc)</th>
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**SOURCE & TOTAL QUANTITY ABOARD / AT SOURCE**

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**THREATENED AREAS (Environmentally sensitive):**

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<td>Greater than 4FT</td>
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<tr>
<th>CLEANUP CONDUCTED or ONGOING?</th>
<th>CLEANUP CONTRACTOR</th>
<th>IS THIS AN OSRO?</th>
</tr>
</thead>
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<tr>
<td>YES ☐</td>
<td></td>
<td>YES ☐</td>
</tr>
<tr>
<td>NO ☐</td>
<td></td>
<td>NO ☐</td>
</tr>
</tbody>
</table>

**REPORT DATE**

V.2.0

**CLASSIFICATION**

UNCLASSIFIED

**CONTROLLING AUTHORITY**

AREA COMMITTEE

**ISSUING AUTHORITY**

T.G. ALLAN, JR.

**PAGE**

9100-6
9180 Level 1 & 2 Trauma Centers

Florida's 22 Verified Trauma Centers

- **Pensacola**
  1. Baptist Hospital (II)
  2. Sacred Heart Hospital (II, F)

- **Tallahassee**
  3. Tallahassee Memorial Hospital (II)

- **Jacksonville**
  4. Shands Jacksonville TraumaCenter (I)

- **Daytona Beach**
  5. Halifax Medical Center (II)

- **Melbourne**
  6. Holmes Medical Center (II)

- **Orlando**
  7. Orlando Regional Medical Center (I, B)

- **Lakeland**
  8. Lakeland Regional Medical Center (III)

- **St. Petersburg**
  9. Bayfront Medical Center (I)
  10. All Children's Hospital/Bayfront Medical Center (P)

- **Tampa**
  11. St. Joseph's Hospital (IUP)
  12. Tampa General Hospital (I, B)

- **Ft. Pierce**
  13. Larnwood Regional Medical Center & Heart Institute (II)

- **Ft. Myers**
  14. Lee Memorial Hospital (II)

- **West Palm Beach**
  15. St. Mary's Medical Center (II, P)

- **DeLand**
  16. Delray Medical Center (IUP)

- **Pompano Beach**
  17. North Broward Medical Center (II)

- **Ft. Lauderdale**
  18. Broward General (I)

- **Hollywood**
  19. Memorial Regional Hospital (I)

- **Miami**
  20. Jackson Memorial Hospital/Ryder Trauma Center (I, B)
  21. Miami Children's Hospital (P)

- **Gainesville**
  22. Shands at the University of Florida (I, B)
# 9200 Personnel and Services Directory

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9254.1 Daily Newspapers
9254.2 Local Television
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9255.1 Georgia Daily Newspapers
9255.2 Georgia Local Television

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9262 Fishing Cooperatives and Fleets
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9263.1 Volunteer Organizations
9263.2 Environmental Interest Groups
9263.3 Environmental Interest / Site Links
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9265 Emergency Medicine and Hospitals
9265.1 Hospitals
9265.2 Emergency Medical Services (EMS)

9270 Phone Contact List

9210 Federal Resource Agencies
Also see annex 9100 and the NSF’s Special Teams Handbook.

9211 U.S. Coast Guard

Sector Jacksonville was established on August 16, 2005 from the reorganization and consolidation of Group Mayport, Base Mayport and MSO Jacksonville. Sector Jacksonville is located on six acres of land adjacent Naval Station Mayport, along the St. Johns River in Mayport, FL. The mission of Sector Jacksonville is to provide unified command and control for accomplishing Coast Guard mission objectives. Sectors provide strategically guided, goal focused, and high performance service delivery across the full range of Coast Guard missions.

Sector Jacksonville’s Area of Responsibility (AOR) encompasses 40,000 square miles of ocean and inland waterways. Within the Sector's AOR are 190 miles of coastline stretching from King’s Bay, GA to Port...
Malabar, FL. Along this coastline are 10 inlets, most of which provide safe passage to inland waterways. Inland waters within the AOR include 248 miles of the Intracoastal Waterway (ICW), 161 miles of the St. John's River, and numerous rivers, creeks, and marshes.

To cover this diverse and challenging AOR, Sector Jacksonville utilizes Multi-Mission Station Mayport, Station Ponce de Leon Inlet, and Station Port Canaveral, FL. In addition, Sector Jacksonville is parent command to four cutters, MARIA BRAY, KINGFISHER, DIAMONDBACK, SHRIKE, HAMMER, two Aids to Navigation teams located at Ponce de Leon and Jacksonville Beach and MSD Canaveral.

Located within Sector Jacksonville’s AOR are five Department of Defense installations, U.S. Eastern Space and Missile Center, the Naval Ordnance Test Unit and Kennedy Space Center.

Sector Jacksonville is responsible for all Coast Guard missions in the Jacksonville Captain of the Port (COTP) zone and AOR including Search and Rescue, Ports Waterways and Coastal Security, Waterways Management, Maritime Homeland Security, Marine Science Activities, Aids to Navigation, and finally Command and Logistical Support.

USCG Sector Jacksonville Command Center can be contacted at: (904) 564-7511

9211.1 National Strike Force

The National Strike Force (NSF) was created in 1973 as a Coast Guard staffed "Special Force". This special force assists On-Scene Coordinators (OSCs) responding to potential and actual oil and hazardous material spills as directed by the National Contingency Plan (NCP).

The National Strike Force is composed of four units, including three 35 member Strike Teams, and the National Strike Force Coordination Center:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Location</th>
<th>Phone Number</th>
<th>OOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlantic Strike Team</td>
<td>Fort Dix, NJ</td>
<td>(609) 724-0008</td>
<td>(609) 556-9376</td>
</tr>
<tr>
<td>Gulf Strike Team</td>
<td>Mobile, AL</td>
<td>(251) 441-6601</td>
<td>(251) 441-6601</td>
</tr>
<tr>
<td>Pacific Strike Team</td>
<td>Novato, CA</td>
<td>(415) 883-3311</td>
<td>(415) 559-9908</td>
</tr>
<tr>
<td>National Strike Force Coordination Center</td>
<td>Elizabeth City, NC</td>
<td>(252) 331-6000</td>
<td>(252) 267-3458</td>
</tr>
</tbody>
</table>

NSF Capabilities Include:
- Responding with trained personnel and specialized equipment to prevent, contain, and / or remove spills of oil and releases of hazardous materials.
- Providing spill management expertise.
- Assisting with response planning and consultation.
- Conducting operational training in oil and chemical spill response techniques and equipment usages.
- Coordinating, conducting, and evaluating the National Preparedness for Response Exercise Program (PREP).
- Identifying, locating, and assisting in the transportation of specialized equipment needed for spill response.
- Providing support from the Public Information Assist Team (PIAT) to OSCs during pollution responses.

The NSF can provide OSCs with expertise in many areas including:
- Operating spill response equipment.
- Supervising / monitoring response personnel on site.
• Outlining, establishing, monitoring site safety requirements during the conduct of hazardous material spill / release operations.
• Providing resource and photographic documentation support.
• Providing command, control, and communications support.

The National Strike Force Inventory includes:
• Lightering and transfer systems –with pumping equipment capable of handling all oils, corrosives, and other chemical cargos.
• Containment Barriers and skimming systems, such as Open Water Oil Containment and Recovery System (OWOCRS).
• Offshore inflatable containment boom.
• Temporary storage devices for oil and hazardous materials.
• Mobile command post and communications equipment.
• Generators, Light Towers, and Air Compressors.
• Air Monitoring Equipment.
• Levels A, B, and C HAZMAT response entry capabilities.
• Tailored and inflatable boats to support deployment of equipment and provide logistics.
• Photographic and video documentation equipment.

Request for strike team Assistance:

As outlined in the NCP, “The OSC may request assistance directly from the Strike Teams. Request for a team member may be made to the Commanding Officer of the appropriate team, the USCG member of the RRT, or Commandant of the USCG through the NRC”.

OSCs are encouraged to use the NSF whenever its expertise or equipment is needed, or to augment the OSC’s staff when it is overburdened by a response to a given incident.

The NSF should be used when:
• A medium, major, or potential discharge occurs.
• Control of the discharge requires the special knowledge or special equipment of the NSF.
• Response will require in excess of the two days to complete removal operations, and augmentation by NSF personnel will release local forces to return to normal operations.
• In the judgment of the OSC, NSF capabilities are necessary.

Upon receiving a request, personnel and equipment will be deployed to the scene in the most expeditious manner possible. Equipment would be dispatched within four hours of a Strike Teams that have Tractor-Trailer rigs, which give them rapid deployment capabilities. In the event air transportation of equipment is required, the appropriate Area Commander will coordinate aircraft support.

By requesting assistance from any one Strike Team, an OSC immediately gains access to the entire National Strike Force personnel roster and equipment inventory. Each team maintains a state of readiness, which enables them to dispatch two members immediately, four members within two hours, and up to twelve members within six hours depending on the request for assistance. NOTE: Since response support is time critical, early notification of Strike Team assistance (or potential assistance) will allow the teams to begin logistics planning even before a formal request is made.

Logistics Considerations:
• Heavy lifting equipment, such as cranes and forklifts capable of handling a 16,000 lb. containment barrier box.
• Fork extensions for forklift.
• Small boats, vessels of opportunity.
• Tractor-Trailer rigs.
Electrical power, landlines for telephones and computers, portable water supply and fuel supply for command posts.

Specific needs will be clarified during the initial request for assistance. These needs vary depending upon the incident and location. Strike Teams attempt to minimize the effort by the OSCs staff required to arrange support. However, the local knowledge of the OSCs staff may be relied upon by the Strike Teams to make reasonable decisions regarding logistics.

To request National Strike Force assistance, contact your servicing Strike Team at the number listed above; or the NSFCC at 252-331-6000 (after hours through the CDO at 252-267-3458); or the National Response Center at 800-424-8802.

NSF website:  http://www.uscg.mil/hq/nsfweb

9211.2 Seventh Coast Guard District Response Assist Team (DRAT)

The District Response Group (DRG) is a framework within each Coast Guard District to organize district resources and assets to support USCG OSCs during response to a pollution incident. Coast Guard DRGs assist the OSC by providing technical assistance, personnel, and the Coast Guard’s pre-positioned equipment. Each DRG consists of all Coast Guard personnel and equipment, including firefighting equipment, additional pre-positioned equipment, and a District Response Advisory Team (DRAT) that is available to provide support to the OSC in the event that a spill exceeds local response capabilities.

<table>
<thead>
<tr>
<th>TELEPHONE NUMBER</th>
<th>(305) 415-6800</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="mailto:D7commcenter2@esumiami.uscg.mil">D7commcenter2@esumiami.uscg.mil</a></td>
<td>(305) 415-6809 Fax</td>
</tr>
</tbody>
</table>

9211.3 Public Information Assist Team (PIAT)

The Public Information Assist Team (PIAT) is an element of the NSFCC staff, which is available to assist OSCs to meet the demands for public information during a response or exercise. Its use is encouraged any time the OSC requires outside public affairs support. Requests for PIAT assistance may be made through the http://www.uscg.mil/hq/nsfweb/piat/piatdefault.asp. (252) 331.6000

Public Information Assist Team
National Strike Force Coordination Center
1461 North Road Street
Elizabeth City, NC 27909

9211.4 Coast Guard Reserve
TOTAL PERSONNEL = 221
OFFICERS = 24 / ENLISTED = 197
[RESERVED FOR FUTURE AREA COMMITTEE DEVELOPMENT]

9211.5 USCG Auxiliary
[RESERVED FOR FUTURE AREA COMMITTEE DEVELOPMENT]
9212 National Oceanographic and Atmospheric Administration (NOAA)

9212.1 Scientific Support Coordinator (SSC)

NOAA Scientific Support Coordinators (SSC) are the principle advisors to the USCG OSC for scientific issues, communication with the scientific community, and coordination of requests for assistance from state and federal agencies regarding scientific studies. The SSC leads a scientific team and strives for a consensus on scientific issues affecting the response, while communicating the differing opinions within the community to the OSC.

The SSC can assist the OSC liaison between damage assessment data collection efforts and data collected in support of response operations. The SSC leads the synthesis and integration of environmental information required for spill response decisions, in support of the OSC. The OSC also coordinates with state representatives, appropriate trustees and other knowledgeable local representatives.

<table>
<thead>
<tr>
<th>TELEPHONE NUMBER</th>
<th>(305) 530-7931, (954) 684-8486</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(206) 526-4911 Hazmat D/O</td>
</tr>
</tbody>
</table>

9212.2 Oceanographic and Atmospheric Modeling

The National Weather Service (NWS) can provide information on the current and predicted climatological and meteorological conditions at the scene of a significant spill incident. Weather Service Field Offices (WSFO) responsible for this area are:

1. WSFO New Orleans, LA.
2. WSFO Miami, FL.
3. National Hurricane Center Miami, FL.

Dept. of Commerce (National Weather Service)

<table>
<thead>
<tr>
<th>Recording Public Info Line</th>
<th>(904) 741-4311 (listen to menu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecaster</td>
<td>(904) 741-4311 (listen to menu) #4</td>
</tr>
<tr>
<td><a href="http://www.nhc.noaa.gov/">http://www.nhc.noaa.gov/</a></td>
<td>(904) 741-0078 Fax</td>
</tr>
<tr>
<td></td>
<td>(800) 499-1594</td>
</tr>
<tr>
<td></td>
<td>x4370</td>
</tr>
</tbody>
</table>

9213 U.S. Navy Supervisory of Salvage (SUPSALV)

The US Navy (USN) is the federal agency most knowledgeable and experienced in ship salvage, shipboard damage control, and diving. The USN has specialized equipment and personnel available for use in these areas as well as containment, collection, and removal equipment specifically designed for the salvage of ocean pollution incidents.

The Supervisor of Salvage (SUPSALV) provides salvage expertise. The SUPSALV maintains a warehouse on each coast stockpiled with salvage and response gear. U.S. Navy assets in the Pacific fall under the command and control of different organizational elements of the Navy. Any request for a Navy asset has to be made to the command that controls the asset through a representative of the Federal On-Scene Coordinator.
The Responsible Party is liable for the cost of any Navy assets used in response operations. The total cost will be included in the federal cost recovery documents sent to the responsible party at the conclusion of the response from the National Pollution Funds Center.

**Useful References**

- U.S. Coast Guard Standard Rates -- COMDTINST 7310.1F
- U.S. Coast Guard Federal On-Scene Coordinator Finance and Resource Management (FFARM) Field Guide
- National Pollution Funds Center - August 31, 1999
- U.S. Navy Pollution Equipment Inventory website: http://www.essmnavy.net/index.html?page=pollution

SUPSALV maintains one of the world's largest inventories of pollution response equipment. All equipment is staged ready for immediate deployment and is available to all federal agencies. A highly trained and experienced team of mechanics performs all maintenance and operations.

These response systems are fully configured with all support equipment, tools, and spares. SUPSALV has designed most systems for offshore open-water oil recovery operations, but also has designed other specialized systems for inland, river, and cold weather spill operations.

Equipment is capable of containment and recovery of many grades of refined and crude oils, including heavy residual oils, and marine and jet fuels. SUPSALV pollution response can be fully supported by a range of equipment needed for a specific job. Equipment is provided on a reimbursable basis.

**Equipment Inventory**

The equipment available is as follows:

<table>
<thead>
<tr>
<th>Equipment Description</th>
<th>Williamsburg, VA</th>
<th>Stockton, CA</th>
<th>San Diego, CA</th>
<th>Anchorage, AK</th>
<th>Pearl Harbor, HI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Spilled Oil Recovery</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skimmer Vessel System (36' Aluminum Hull)</td>
<td>10</td>
<td>6</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Skimmer System (Sorbent Belt VOSS)</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Skimmer System (Weir VOSS)</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Skimmer Sorbent Rope Mop (36&quot;)</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Boom Fire (18&quot; x 350')</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Boom Van (42' x 1980' Boom)</td>
<td>15</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Boom Mooring System</td>
<td>25</td>
<td>31</td>
<td>6</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Boom Mooring System (Deep Water)</td>
<td>2</td>
<td>27</td>
<td>0</td>
<td>10</td>
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</tr>
<tr>
<td>Equipment Description</td>
<td>Williamsburg, VA</td>
<td>Stockton, CA</td>
<td>San Diego, CA</td>
<td>Anchorage, AK</td>
<td>Pearl Harbor, HI</td>
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</tr>
<tr>
<td>Extension)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boom Handling Boat (24' 260 hp diesel)</td>
<td>10</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Boom Tending Boats (19' and 23' inflatable)</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>2</td>
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<tr>
<td>Boom Tending Boats (18' rigid hull)</td>
<td>4</td>
<td>5</td>
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<tr>
<td>26K Oil Storage Bladder</td>
<td>2</td>
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<tr>
<td>50K Oil Storage Bladder</td>
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<td>2</td>
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<tr>
<td>136K Oil Storage Bladder</td>
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<tr>
<td><strong>Equipment Description</strong></td>
<td><strong>Inventory last revised: January 29, 1999</strong></td>
<td></td>
<td></td>
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<tr>
<td>290K Oil Storage Bladder</td>
<td>0</td>
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<tr>
<td>Salvage Support Skimmer System</td>
<td>2</td>
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<tr>
<td>Inland Support Skimmer System</td>
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<td>2</td>
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<tr>
<td><strong>Casualty Offloading</strong></td>
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<td></td>
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<tr>
<td>Pump System POL 6' Submersible</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>4</td>
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<tr>
<td>Viscous Oil Transfer System</td>
<td>3</td>
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<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Floating Hose System</td>
<td>1</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hot Tap System</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Boarding Kit</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Fender System (14' x 60' LP air)</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fender System (10' x 50' LP air)</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Ancillary Equipment</strong></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Command Trailer (40')</td>
<td>2</td>
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<td>0</td>
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</tr>
<tr>
<td>Command Van (20')</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Shop Vans</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Rigging Vans</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Supply Vans</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Personnel Bunk Vans</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Beach Transfer System (4-WD Vehicles)</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Communication System (Satellite Phone, Land)</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Communications System (Satellite Phone, Ship)</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Oil/Water Separator (Parallel Plate 100 gpm)</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Clearing System</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Equipment Description</strong></td>
<td><strong>Inventory last revised: January 29, 1999</strong></td>
<td></td>
<td></td>
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<tr>
<td>Vacuum Pump Skimmer System</td>
<td>2</td>
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<td>0</td>
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<td>0</td>
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<tr>
<td>Firefighting System, Off-Ship (OSFS)</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Material Transfer System</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
9214 Environmental Protection Agency Emergency Response Team

The EPA’s Environmental Response Team (ERT) has expertise in treatment technology, biology, chemistry, hydrology, geology, and engineering. The ERT can provide the OSC with special equipment to deal with chemical releases. The ERT and can provide the OSC advice concerning hazard evaluations, multimedia sampling and analysis, risk assessments, on-site safety, cleanup techniques, water supply decontamination and protection, use of dispersants, environmental assessment, the degree of clean-up required, and disposal of contaminated materials. The ERT also offers various training courses to prepare response personnel.

<table>
<thead>
<tr>
<th>EPA National Duty</th>
<th>732-321-6660 24 hr, x6746</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPA Emergency Response Duty</td>
<td>732-321-6724 National</td>
</tr>
<tr>
<td></td>
<td>800-999-6990</td>
</tr>
<tr>
<td></td>
<td>404-562-9900 Info/Message Line</td>
</tr>
<tr>
<td></td>
<td>404-562-8693 Fax</td>
</tr>
<tr>
<td></td>
<td>404-650-4955 On Call Pager</td>
</tr>
</tbody>
</table>

9215 Agency for Toxic Substances and Disease (ATSDR)

The Agency for Toxic Substance and Disease (ATSDR) maintains appropriate disease / exposure registries, provides medical care and testing for individuals during public health emergencies. The ATSDR develops, maintains and informs the public concerning the effects of toxic substances, and maintains a list of restricted or closed areas due to contamination. They also conduct research examining the relationship between exposure and illness, and conduct health assessments at contaminated sites.

The ATSDR assists the EPA in identifying most hazardous substances at CERCLA sites and develops guidelines for toxicology profiles. ATSDR resources are important tools for the OSC to use in assessing the possible effects of an environmental emergency on public health.

<table>
<thead>
<tr>
<th>TELEPHONE NUMBER</th>
<th>E.O.C. CDC (404) 498-0120</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(800)-232-4636</td>
</tr>
<tr>
<td></td>
<td>ATSDR (888) 232-6348</td>
</tr>
</tbody>
</table>

9216 Federal Natural Resource Trustees

The Federal Natural Resource Trustees are responsible for assessing damages to the resources in accordance with the Oil Pollution Act of 1990. These regulations were promulgated under section 301 (c) of CERCLA, seeking recovery for losses from responsible parties or from the fund. They are also designed to devise and carry out restoration, rehabilitation and replacement plans pursuant to CERCLA. The Federal Natural Resource Trustees in the COTP Jacksonville AOR are as follows:

<table>
<thead>
<tr>
<th>Department of Interior (US Forest Service)</th>
<th>(850) 523-8500</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Atlanta:</td>
<td>(850) 228-7980</td>
</tr>
<tr>
<td></td>
<td>(770) 458-2464</td>
</tr>
<tr>
<td></td>
<td>(850) 523-8543 (Fax)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Department of Commerce</th>
<th>(206) 526-6317</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOAA:</td>
<td>(202) 482-2000</td>
</tr>
<tr>
<td>NOAA Damage Assessment:</td>
<td>(206) 526-4911 (24hr)</td>
</tr>
<tr>
<td></td>
<td>(206) 526-4563</td>
</tr>
</tbody>
</table>
All the trustees for a specific area can be found in 9710 Response Strategies.

### 9217 Military Bases (Security)

<table>
<thead>
<tr>
<th>Naval Air Station JAX</th>
<th>(904) 542-2805, x4677, x2338, x2339 (904) 542-3277 24hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naval Station Mayport</td>
<td>(904) 270-5583, x5401, x5226</td>
</tr>
<tr>
<td>Naval Submarine Base Kings Bay</td>
<td>(912) 573-2271 (912) 573-2042, x4718</td>
</tr>
<tr>
<td>Kennedy Space Center</td>
<td>(NASA) (321) 867-7110 or 867-2455</td>
</tr>
<tr>
<td>Air Force Station Cape Canaveral</td>
<td>(321) 853-2121</td>
</tr>
<tr>
<td>Patrick Air Force Base</td>
<td>(321) 494-2008, (321) 853-1110</td>
</tr>
</tbody>
</table>

### 9220 State Resource Agencies

<table>
<thead>
<tr>
<th>State Agency</th>
<th>Point of Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>State of Florida Fish and Wildlife Conservation Commission JACKSONVILLE</td>
<td>(904) 359-3886 (800) 404-3922 24hr</td>
</tr>
<tr>
<td>State of Florida Fish and Wildlife Conservation Commission TITUSVILLE</td>
<td>(800) 404-3922 24hr</td>
</tr>
<tr>
<td>State of Florida Department of Environmental Protection JACKSONVILLE*</td>
<td>(904) 256-1700</td>
</tr>
<tr>
<td>State of Florida Department of Environmental Protection ORLANDO</td>
<td>(407) 894-7555</td>
</tr>
<tr>
<td>State of Florida Department of Health (through State Warning Point)</td>
<td>(800) 320-0519</td>
</tr>
<tr>
<td>State of Florida STATE WARNING POINT</td>
<td>(800) 320-0519</td>
</tr>
<tr>
<td>Florida Department of Transportation Maintenance</td>
<td>(904) 360-5200</td>
</tr>
</tbody>
</table>

### 9221 State Environmental Agencies

<table>
<thead>
<tr>
<th>Bureau of Solid and Hazardous Waste</th>
<th>850-488-0300, 850-245-8707</th>
</tr>
</thead>
<tbody>
<tr>
<td>Division of Air Resources Management</td>
<td>850-488-0114, 850-717-9000</td>
</tr>
<tr>
<td>Division of Water Resources Management</td>
<td>850-487-1855, 850-245-8336</td>
</tr>
<tr>
<td>Environmental Regulation Commission</td>
<td>850-488-9730</td>
</tr>
</tbody>
</table>
The mission of the Bureau of Emergency Response (BER) is to respond to any incident or situation that represents an imminent hazard, or threat of a hazard, to the public health, welfare and safety, or the environment, and to protect the public safety and the environment through planning and organization of resources.

The goal of the BER is to eliminate the emergency situation which includes containment, site stabilization, source removal, technical assistance, damage assessment, sampling, analysis, waste disposal and cost recovery. Most actions will be taken by the responsible party, with BER providing technical assistance as necessary. When the responsible party is unknown, refuses to cooperate, or performs an unsatisfactory cleanup, the BER will take over, using contracted resources.

Ultimately, the goal of the cleanup is to protect the public's health and the environment, while balancing the cost to the public. Frequently, the quickest, most efficient and cost effective method is to work with the responsible party. In other cases, immediate actions by the BER or local public safety officials may be necessary to ensure that the public safety or environmental concerns will be properly and quickly addressed.

History
On July 1, 1993, The Department of Environmental Protection (DEP) was formed by merging the Departments of Natural Resources and Environmental Regulation. The merger brought most of the state's environmental protection and natural resource management duties under one agency. Within the DEP, a new Bureau of Emergency Response was formed by combining the staff from the Department of Natural Resources, Office of Coastal Protection, and the Department of Environmental Regulation, Emergency Response Section. BER has been placed in the Division of Law Enforcement, which also includes the Florida Park Patrol. The BER brings all the strengths of the coastal and inland emergency response programs together into one response oriented program.

Organization
The BER headquarters is located in Tallahassee. The headquarters office provides the 24-hour contact for emergency incidents or any situation where a DEP representative must be contacted. The headquarters staff provides technical assistance over the telephone, and may provide logistical support to the district field offices if necessary. Other headquarters functions serve to administratively support the field offices.

Headquarters
The BER headquarters is located in Tallahassee. The headquarters office provides the 24-hour contact for emergency incidents or any situation where a DEP representative must be contacted. The headquarters staff provides technical assistance over the telephone, and may provide logistical support to the district field offices if necessary. Other headquarters functions serve to administratively support the field offices.

Districts
BER has divided the state into five districts, with response staff in each district field office. Each regional office has pre-designated state on-scene coordinators (SOSC) which will have jurisdiction over that part of the state. The SOSC will provide the incident assessment and identify the hazards and immediate actions necessary to contain the spill. They investigate incidents of illegal dumping or discharging, criminal activities, and supervise cleanups by responsible parties and contractors hired by the state.

Response
Ultimately, the goal of the cleanup is to protect the public's health and the environment, while balancing the cost to the public. Frequently, the quickest, most efficient and cost effective method is to work with the responsible party. In other cases, immediate actions by the BER or local public safety officials may be necessary to ensure that the public safety or environmental concerns will be properly and quickly addressed. Due to the large number of reported incidents, the BER can only respond to significant incidents that may adversely affect the public health or the environment. Most small incidents will be handled over the telephone, working with the responsible party or local agencies to ensure that the incident is cleaned up.
Notification

Florida Law Requires Reporting of Oil and Hazardous Substances Spills

State Warning Point, 24 hour
(850) 413-9911
(800) 320-0519

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Jacksonville</td>
<td>904-807-3300</td>
</tr>
<tr>
<td></td>
<td>904-448-4300</td>
</tr>
<tr>
<td></td>
<td>904-448-4366 Fax</td>
</tr>
<tr>
<td>Orlando</td>
<td>407-894-7555</td>
</tr>
<tr>
<td></td>
<td>407-893-3167 Fax</td>
</tr>
<tr>
<td>Tallahassee</td>
<td>850-488-3704</td>
</tr>
<tr>
<td></td>
<td>850-922-3620 Fax</td>
</tr>
</tbody>
</table>

9221.2 Florida Fish and Wildlife Conservation

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Orlando</td>
<td>352-840-5733, 352-732-1225</td>
</tr>
<tr>
<td></td>
<td>352-732-1234</td>
</tr>
<tr>
<td></td>
<td>888-404-3922 Non-Emergency</td>
</tr>
<tr>
<td>Dispatch for Lake City, Tallahassee and Jacksonville</td>
<td>888-404-3922</td>
</tr>
<tr>
<td>Lake City</td>
<td>386-758-0525</td>
</tr>
<tr>
<td></td>
<td>386-758-0533 Fax</td>
</tr>
<tr>
<td>Tallahassee</td>
<td>850-245-7710, 850-488-6251</td>
</tr>
<tr>
<td></td>
<td>850-921-6453 Fax</td>
</tr>
<tr>
<td>Jacksonville</td>
<td>904-270-2500 M-F 8am-5pm</td>
</tr>
<tr>
<td></td>
<td>904-359-3883 24hr Dispatch</td>
</tr>
<tr>
<td></td>
<td>904-359-3881 Fax</td>
</tr>
</tbody>
</table>

9221.3 Florida Department of Community Affairs

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Division of Emergency Management</td>
<td>800-320-0519</td>
</tr>
<tr>
<td></td>
<td>850-488-7841 Fax</td>
</tr>
<tr>
<td>State Warning Point</td>
<td>800-320-0519</td>
</tr>
</tbody>
</table>

9221.4 Florida National Guard

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Military Affairs</td>
<td>904-448-4760 M-F 8am-5pm</td>
</tr>
<tr>
<td></td>
<td>904-823-0364</td>
</tr>
<tr>
<td></td>
<td>904-814-2975 24hr</td>
</tr>
<tr>
<td></td>
<td>904-823-0152 Fax</td>
</tr>
</tbody>
</table>

9221.5 Georgia Department of Natural Resources

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Brunswick</td>
<td>912-264-7218</td>
</tr>
<tr>
<td></td>
<td>800-241-4113</td>
</tr>
<tr>
<td>Atlanta</td>
<td>404-656-6905</td>
</tr>
</tbody>
</table>
9222 State Law Enforcement Agencies
Additional resources can be found in annex 9100

9222.1 Georgia Law Enforcement Agencies

<table>
<thead>
<tr>
<th>Georgia Highway Patrol (Brunswick)</th>
<th>912-370-2600</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>912-262-2380 RFS</td>
</tr>
</tbody>
</table>

9222.2 Florida Law Enforcement Agencies

| Florida Dept. of Transportation | 904-360-5400, 850-414-4100 |
| Florida Dept. of Law Enforcement | 904-359-6480, 850-410-7000 |
| Florida Highway Patrol          | 904-695-4115 |
| Troop “G” (Jacksonville)        | 800-387-1290 |

| Florida Highway Patrol          | 407-737-2300 |
| Troop “D” (Orlando)             | 800-387-1290 |

| Florida Highway Patrol          | 904-825-5080 |
| Troop “G” St. Augustine         | 800-387-1290 |

9230 Local Government Resource Agencies
Additional resources can be found in annex 9100

9231 Local Emergency Management Agencies

<p>| Brevard Emergency Management    | (321) 637-6670 |
|                                 | (321) 633-1738 Fax |
| Camden Civil Defense / Fire and Rescue | (912) 729-5602 |
|                                   | 912-729-1442 |
| Clay Department of Public Safety | (904) 284-7703 |
|                                   | (877) 252-9362 |
| Duval Emergency Preparedness     | (904) 630-2472 |
|                                   | (904) 630-0600 Fax |
| Flagler Civil Defense / Sheriff Office | (386) 437-4116 24hr |
| <a href="mailto:info@flagleremergency.com">info@flagleremergency.com</a>        | (386) 437-7372 Fax |
| Nassau Department of Emergency Services | (904) 321-5750 |</p>
<table>
<thead>
<tr>
<th><strong>9232 Local Environmental Agencies</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Jacksonville Environmental Resource Management</td>
<td>(904) 630-3635</td>
</tr>
<tr>
<td></td>
<td>Duty Officer (24 hour beeper)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Brevard County Natural Resources Management Division</td>
<td>(321) 633-2017</td>
</tr>
<tr>
<td>n剂<a href="mailto:res@brevardcounty.us">res@brevardcounty.us</a></td>
<td>Code Enforcement Officer (24hr beeper)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>St. Johns River Water Mgmt District</td>
<td>Palatka</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Environmental Response Coordinator</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="mailto:bwolfred@sjwmd.com">bwolfred@sjwmd.com</a></td>
<td>Jacksonville</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>9234 Local Law Enforcement Agencies</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>9234.1 Local Police Departments</strong></td>
</tr>
</tbody>
</table>

| Atlantic Beach, FL | (904) 247-5859 |
| Cape Canaveral, FL | (321) 264-5100, 321-783-7831 |
| Cocoa, FL | (321) 639-7626 |
| Cocoa Beach, FL | (321) 868-3251 |
| Daytona Beach, FL | (386) 255-1431, 386-671-5100 |
| Fernandina, FL | (904) 277-7342 |
| Flagler Beach, FL | (386) 517-2003, 386-437-4116 |
| Green Cove Springs, FL | (904) 529-2220 |
| Jacksonville, FL | (904) 630-2120 |
| Kingsland, GA | (912) 729-4516 |
| Neptune Beach, FL | (904) 270-2411, 904-270-2413 |
| New Smyrna Beach, FL | (386) 424-2220 |
| | (386) 424-2234 |
| | (386) 424-2255 Fax |
| Orange Park, FL | (904) 264-5555 |
| Ormond Beach, FL | (386) 677-0731 |
| Palatka, FL | (904) 329-0111, 386-329-0115 |
| St. Augustine, FL | (904) 825-1070, 904-471-3600 |
| St. Mary's, GA | (912) 882-4488, 912-882-6834 |
| Titusville, FL | (321) 264-7800 |
| Melbourne, FL | (321) 409-2200 |
### 9234.2 County Sheriff Offices

<table>
<thead>
<tr>
<th>County</th>
<th>Area Code</th>
<th>Subarea Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brevard County, FL</td>
<td>(321) 633-7162</td>
<td></td>
</tr>
<tr>
<td>Camden County, GA</td>
<td>(912) 729-1442 24hr</td>
<td></td>
</tr>
<tr>
<td>Clay County, FL</td>
<td>(904) 264-6512</td>
<td></td>
</tr>
<tr>
<td>Duval County, (Jacksonville) FL</td>
<td>(904) 630-2120</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(904) 630-7600 Info</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(904) 630-0500 Non Emerg. #</td>
<td></td>
</tr>
<tr>
<td>Flagler County, FL</td>
<td>(386) 437-4116</td>
<td></td>
</tr>
<tr>
<td>Nassau County, FL</td>
<td>(904) 225-5174</td>
<td></td>
</tr>
<tr>
<td>Putnam County, FL</td>
<td>(386) 329-0800</td>
<td></td>
</tr>
<tr>
<td>St. Johns County, FL</td>
<td>(904) 824-8304</td>
<td></td>
</tr>
<tr>
<td>Volusia County, FL</td>
<td>(386) 248-1777 Ext. 0</td>
<td></td>
</tr>
<tr>
<td>Titusville, FL</td>
<td>(321) 264-5100</td>
<td></td>
</tr>
<tr>
<td>Melbourne, FL</td>
<td>(321) 259-1211 Ext. 0</td>
<td></td>
</tr>
</tbody>
</table>

### 9235 Local Fire and Rescue Departments

See section 9150 of Annex 9100.

### 9236 Local Hazardous Materials Response Teams

#### 9236.1 Duval County HAZMAT Teams

<table>
<thead>
<tr>
<th>Location</th>
<th>Phone Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazmat Station #7</td>
<td>(904) 630-0529, 904-279-0880</td>
</tr>
<tr>
<td>NAS Jacksonville</td>
<td>(904) 542-2717</td>
</tr>
<tr>
<td>Naval Station Mayport</td>
<td>(904) 272-5183 (904) 272-5187</td>
</tr>
</tbody>
</table>

#### 9236.2 St. Johns County & Vicinity HAZMAT Teams

<table>
<thead>
<tr>
<th>Location</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Johns County Hazmat Team</td>
<td>(904) 829-2226/823-2644</td>
</tr>
</tbody>
</table>

#### 9236.3 St. Johns River Water Management District HAZMAT Teams

<table>
<thead>
<tr>
<th>Location</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Chemical Spill Team</td>
<td>(386) 329-4219/329-4358</td>
</tr>
</tbody>
</table>

#### 9236.4 Volusia County & Vicinity HAZMAT Teams

<table>
<thead>
<tr>
<th>Location</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volusia County Hazmat Team</td>
<td>(386) 254-1500</td>
</tr>
</tbody>
</table>
9236.5 Brevard County & Vicinity HAZMAT Teams

| Brevard County Hazmat Team | (321) 255-4384 Fax |

9237   Local Port Authorities

| Jacksonville Port Authority Engineering Dept. | (904) 630-3084 or 630-3020 (904) 630-3007 Fax |
| After Hours (Victoria Robas for TDT) | (904) 838-4314 |
| After Hours (David Smolder for BIT & Dames Point) | (904) 757-7806 |
| Canaveral Port Authority | (321) 783-5971 or 783-7831 (321) 783-7723 Fax |
| After Hours | (321) 783-7832 (321) 783-7723 Fax |

9238 Harbor Masters

| Cape Canaveral | (321) 783-7832 (321) 783-7723 Fax |
| Fernandina | (904-321-1803 (24/7) Bar pilot |
| Jacksonville | (904) 630-0839 or 499-3969 (pgr), 904-608-1122 |
| St. Augustine | (904) 824-1025 or 669-2625 (cell) |

9240 Private and Other Non-Governmental Resource Providers

9241 Oil Clean Up Contactors (Both BOA and Non-BOA)

Emergency Response Contractors are listed by the county in which they maintain an office. Most Emergency Response Contractors can provide service to other counties and some provide service statewide. The Coast Guard and Florida Department of Environmental Protection (FDEP) do not endorse any contractor and a firm’s absence or presence does not imply prejudice or impropriety. Call the FDEP Bureau of Emergency Response at (850) 245-2871 or (904) 256-1528 with any questions.

9241.1 Twenty-four Hour Emergency Response Contractors

Click here for the FDEP/BER list of 24 hour emergency response.
http://www.dep.state.fl.us/oer/contractors.htm.
9241.2 FDEP Approved Emergency Response Contractors

Click here for the FDEP/BER list of approved emergency response contractors. http://www.dep.state.fl.us/oer/contractors.htm.

9241.3 USCG National Strike Force Oil Spill Response Organization Capabilities

Click here for the 2004NSFCC list of OSROs. http://www.uscg.mil/hq/nsfweb/default.asp#nogo

9242 HAZMAT Clean Up Contractors (Both BOA and Non-BOA)

Sector Jacksonville’s AOR has numerous HAZMAT response organizations. For most minor HAZMAT incidences for which the MSO will be responsible, those without identifiable responsible parties or responsible parties not taking timely action to mitigate the release, the MSO will contract a cleanup contractor with an established Coast Guard Basic Ordering Agreement (BOA).

When a release occurs which requires more services than a BOA contractor can supply, or when a BOA contractor is not available, contractors without a BOA may be utilized.

<table>
<thead>
<tr>
<th>Supply Contractors (North)</th>
<th>Est'd Response Time (hrs)</th>
<th>BOA</th>
<th>Point of Contacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moran Recovery, Inc</td>
<td>2</td>
<td>X</td>
<td>Mitch Cramer, Hazardous Waste Manager</td>
</tr>
<tr>
<td>Moran Recovery, INC 251 Levy Road</td>
<td>1</td>
<td></td>
<td>Joey Teague, Operation Manager</td>
</tr>
<tr>
<td>Atlantic Beach, FL 32233</td>
<td>1.5</td>
<td></td>
<td>Russel Gordon, Vice President</td>
</tr>
<tr>
<td>(904) 241-2200 / 800-359-3740</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jacksonville Pollution Control Inc.</td>
<td>1.5</td>
<td>X</td>
<td>Earl Edenfield Jr.</td>
</tr>
<tr>
<td>Jacksonville, FL 32206-0005</td>
<td>1</td>
<td></td>
<td>Tommy Thompson</td>
</tr>
<tr>
<td>(904) 355-4164 or 355-4169</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial Marine Services, Inc</td>
<td>19</td>
<td></td>
<td>Anthony Keeling</td>
</tr>
<tr>
<td>PO Box 1779</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Norfolk, VA 23501</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(757) 543-5718</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marine Spill Response Corporation</td>
<td>24</td>
<td></td>
<td>Gary Crowden</td>
</tr>
<tr>
<td>1350 I Street NW, Ste 300</td>
<td>24</td>
<td></td>
<td>Darnel Larence (757) 460-5179</td>
</tr>
<tr>
<td>Washington, DC 20005</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(202) 408-5909</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24-hour emergency #: 1-800-259-6772</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply Contractors (North)</td>
<td>Est'd Response Time (hrs)</td>
<td>BOA</td>
<td>Point of Contacts</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>---------------------------</td>
<td>-----</td>
<td>------------------</td>
</tr>
<tr>
<td>Diversified Environmental Services, Inc</td>
<td>Fernandina Beach</td>
<td>7</td>
<td>Curt Lessl</td>
</tr>
<tr>
<td>PO Box 5706</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tampa, FL 33675-5706</td>
<td>St. Augustine</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>(813) 248-3256</td>
<td>Cape Canaveral</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Environmental Remediation Services Inc.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14600 W. Duval Place</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jacksonville, Fl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(904) 741-4744, 800-718-5598</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Florida Environmental Compliance Corp.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>933 Lee Road Suite 406</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orlando, Fl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(800) 771-1050, 904-731-8959</td>
<td></td>
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</tbody>
</table>
# 9242.1 Obtaining Chemical Information

Telephone Information and Technical Support References

<table>
<thead>
<tr>
<th>Resource</th>
<th>Contact</th>
<th>Services Provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Transportation Emergency Center (CHEMTREC)</td>
<td>800-262-8200</td>
<td>24-hour emergency number connecting with manufacturers and/or shippers. Advice provided on handling, rescue gear, decontamination considerations, etc. Also provides access to the Chlorine Emergency Response Plan (CHLOREP).</td>
</tr>
<tr>
<td>CHEM-TEL</td>
<td>800-255-3924</td>
<td>Provides immediate information for personnel on scene of a chemical spill.</td>
</tr>
<tr>
<td>Agency for Toxic Substances and Disease Registry (ATSDR)</td>
<td>800-232-4636</td>
<td>24-hour emergency number for health-related support in hazardous materials emergencies, including onsite assistance.</td>
</tr>
<tr>
<td>Bureau of Explosives</td>
<td>719-584-7151</td>
<td>Available 9am to 6pm (EST). Provides information on SARA Title III, list of extremely hazardous substances, and planning guidelines.</td>
</tr>
<tr>
<td>Environmental Protection Agency (EPA) Regional IV Office</td>
<td>404-562-8700 x9104</td>
<td>24-hour emergency number. Environmental Response Teams are available for technical assistance.</td>
</tr>
<tr>
<td>National Pesticides Information Retrieval System</td>
<td>765-494-6616, x6614</td>
<td>Contact information for help in searching NPIRS database to get fact sheets on pesticides, insecticides, fungicides, and state and federally registered chemicals.</td>
</tr>
<tr>
<td>National Pesticide Telecommunications Network</td>
<td>800-858-7378 765-494-6614</td>
<td>Provides information about pesticide-related topics; including pesticide products, recognition and management of pesticide poisoning, toxicology, environmental chemistry, referrals for laboratory analyses, investigation of pesticide incidents, emergency treatment,</td>
</tr>
<tr>
<td>Service</td>
<td>Phone Number</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
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</tr>
<tr>
<td>National Response Center</td>
<td>800-424-8802</td>
<td>A federal hotline for reporting oil and hazardous substances spills/releases.</td>
</tr>
<tr>
<td>U.S. Army Soldiers and Biological Chemical Command (SBCCOM)</td>
<td>800-368-6498 410-436-5501</td>
<td>24-hour consultation service for threats and releases pertaining to chemical and biological agents.</td>
</tr>
<tr>
<td>State Environmental Office Florida</td>
<td>850-921-1222</td>
<td>Florida Dept. of Environ. Protection</td>
</tr>
<tr>
<td>Georgia</td>
<td>404-657-5947</td>
<td>Georgia Dept. of Natural Resources, Environmental Protection Division</td>
</tr>
<tr>
<td>Jacksonville Poison Information Center</td>
<td>800-222-1222 904-244-4465</td>
<td>Emergency telephone number</td>
</tr>
<tr>
<td><strong>Resource</strong></td>
<td><strong>Contact</strong></td>
<td><strong>Services Provided</strong></td>
</tr>
<tr>
<td>--------------</td>
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</tr>
<tr>
<td>State Emergency Response Commission</td>
<td>800-635-7179 850-413-9970</td>
<td>In Florida only</td>
</tr>
<tr>
<td>Florida Georgia</td>
<td>404-6566905</td>
<td></td>
</tr>
<tr>
<td>State Health Department</td>
<td>850-245-4040</td>
<td>Florida Dept. of Health, Emergency Operations</td>
</tr>
<tr>
<td>Florida Georgia</td>
<td>404-657-2700</td>
<td>Division of Public Health, Director</td>
</tr>
<tr>
<td>Florida Georgia</td>
<td>800-879-4362 404-635-7000</td>
<td>Georgia Emergency Mgmt. Agency</td>
</tr>
<tr>
<td>Jacksonville Fire and Rescue Department</td>
<td>904-630-0434 904-630-0527</td>
<td>Emergency Preparedness</td>
</tr>
<tr>
<td>Local HAZMAT Teams</td>
<td>See Section 9230.130</td>
<td>Jacksonville Area Contingency Plan</td>
</tr>
<tr>
<td>Jacksonville Sheriff’s Office</td>
<td>904-630-2120</td>
<td></td>
</tr>
<tr>
<td>Local Emergency Planning Committee</td>
<td>904-279-0880</td>
<td>Northeast Florida Regional Planning Council</td>
</tr>
<tr>
<td>Local Health Department</td>
<td>904-630-3300</td>
<td>Duval County Health Dept.</td>
</tr>
<tr>
<td>Florida Georgia</td>
<td>912-264-3907</td>
<td>Coastal District Director</td>
</tr>
<tr>
<td>FEMA Regional Office</td>
<td>877-336-2627</td>
<td></td>
</tr>
<tr>
<td>State Agriculture Office</td>
<td>404-331-4524 or 404-909-0537</td>
<td>24 hour</td>
</tr>
<tr>
<td>State Lab Office</td>
<td>904-296-3007</td>
<td>Environmental Conservation Lab</td>
</tr>
<tr>
<td>State EMS Office</td>
<td>904-633-2211</td>
<td>Local office</td>
</tr>
</tbody>
</table>

Computerized Data Sources for Information and Technical Support
<table>
<thead>
<tr>
<th>Data System</th>
<th>Contact</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHRIS</td>
<td>CIS, Inc. c/o Oxford Molecular Group 11350 McCormick Road Executive Plaza, Suite 1100 Hunt Valley, Maryland 21031 (800) 247-8737 website: <a href="http://www.oxmol.com/software/cis/details/CHRIS.shtml">www.oxmol.com/software/cis/details/CHRIS.shtml</a></td>
<td>Chemical Hazard Response Information System, developed by the Coast Guard and comprised of reviews on fire hazards, fire-fighting recommendations, reactivities, physicochemical properties, health hazards, use of protective clothing, and shipping information for over 1,000 chemicals.</td>
</tr>
<tr>
<td>HAZARDTEXT</td>
<td>Micromedex, Inc Suite 300 6200 S. Syracuse Way Englewood, Colorado 80111-4740 (800) 525-9083 website: <a href="http://www.micromedex.com/products/pd-main.htm">www.micromedex.com/products/pd-main.htm</a></td>
<td>Assists responders dealing with incidents involving hazardous material, such as spills, leaks, and fires. Provides information on emergency medical treatment and recommendations for initial hazardous response.</td>
</tr>
<tr>
<td>HSDB</td>
<td>HSDB Representative National Library of Medicine Specialized Information Systems 8600 Rockville Pike Bethesda, Maryland 20894 (301) 496-6531 website: sis.nlm.nih.gov/sis1</td>
<td>Hazardous Substances Data Bank, compiled by the National Library of Medicine, provides reviews on the toxicity, hazards, and regulatory status of over 4,000 frequently used chemicals.</td>
</tr>
<tr>
<td>Data System</td>
<td>Contact</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| First Medical Response Protocols | Micromedex, Inc.  
Suite 300  
6200 S. Syracuse Way  
Englewood, Colorado 80111  
(800) 525-9083  
website: www.micromedex.com/products/pd-main.htm | Helps develop training programs and establish protocols for first aid or initial workplace response to a medical emergency. |
| MEDITEXT                    | Micromedex, Inc.  
Suite 300  
6200 S. Syracuse Way  
Englewood, Colorado 80111  
(800) 525-9083  
website: www.micromedex.com/products/pd-main.htm | Provides recommendations regarding the evaluation and treatment of exposure to industrial chemicals. |
| OHMTADS                     | Oxford Molecular Group, Inc.  
11350 McCormick Rd.  
Executive Plaza 3, Suite 1100  
Hunt Valley, Maryland 21031  
(800) 247-8737  
website: www.oxmol.com/software/cis/details/OHMTADS.shtml. | Oil and Hazardous Materials/Technical Assistance Data Systems provides information on the effects of spilled chemical compounds and their hazardous characteristics and properties, assists in identifying unknown substances, and recommends procedures for handling cleanups. |
| TOMES                       | Micromedex, Inc.  
Suite 300  
6200 S. Syracuse Way  
Englewood, Colorado 80111  
(800) 525-9083  
<table>
<thead>
<tr>
<th>Data System</th>
<th>Contact</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOXNET</td>
<td>Toxicology Data Network (TOXNET) National Library of Medicine Specialized Information Services 8600 Rockville Pike Bethesda, Maryland 20894 (301) 496-6531 website: sis.nlm.nih.gov/sis1</td>
<td>A computerized system of three toxicologically oriented data banks operated by the National Library of Medicine, the Hazardous Substances Data Bank, the Registry of Toxic Effects of Chemical Substances, and the Chemical Carcinogenesis Research Information System. TOXNET provides information on the health effects of exposure to industrial and environmental substances.</td>
</tr>
</tbody>
</table>

### 9243 Storage and Disposal Facilities

The storage and disposal of contaminated material from a spill is a significant problem in a spill response. Florida Department of Environmental Protection is the primary agency that governs this area of response. They should be contracted early in any response to help coordinate the disposal of oily waste.

A list of public and privately owned waste to energy plants and Class I landfills, are found in the [http://www.dep.state.fl.us/oer/contractors.htm](http://www.dep.state.fl.us/oer/contractors.htm).

### 9244 Waste Transportation Companies

The regulations concerning the transportation of hazardous waste are much too involved for inclusion in this plan. When a question involving waste transportation procedures arises the FDEP should be contacted. The following is a list of geographically selected haulers:

<table>
<thead>
<tr>
<th>Company</th>
<th>Phone Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florida Environmental Compliance Corp.</td>
<td>(800) 771-1050</td>
</tr>
<tr>
<td>All Environmental Services</td>
<td>(908) 755-2962</td>
</tr>
<tr>
<td>Environmental Remediation Services</td>
<td>(904) 791-9992 24hr (904) 791-9833 Fax (800) 724-5270</td>
</tr>
<tr>
<td>RSDI Environmental Inc.</td>
<td>(904) 745-1929</td>
</tr>
</tbody>
</table>

**PERMITS:**

The regulatory requirements regarding the transportation and disposal of hazardous wastes (including the determination of whether a substance is a hazardous waste) are complex and lengthy.

For normal, industrial-generated waste which is handled routinely by a company, the disposal procedures can, and do, become routine.

Due to the unique nature of spill events, especially large ones, consultation with state regulators early in the spill is highly recommended, if not absolutely essential.

The FDEP and FDOT will coordinate with Sector Jacksonville to make the necessary permits available in a timely manner to allow the waste generated by the spill to be transported to a temporary storage unit.

### 9250 Media (Television, Radio, and Newspaper) Points of Contact and Resources
9251 Government Media Service Providers

The District Public Affairs Office is ready to assist an OSC by providing Public Affairs Specialists for media liaison and photo documentation. This office should be contacted as early as the primary resource for public affairs assistance. Request for assistance from the District Public Affairs Office should be made through Seventh Coast Guard District (305) 415-6683.

The 7th District Public Affairs office has social media pages:
Twitter page: @USCGSoutheast.
Facebook: USCGSoutheast

A Coast Guard Public Information Assist team (PIAT) is also available to OSC’s when additional personnel or expertise is required to accommodate the media. PIAT is a specialized, self-contained, public affairs resource that is available through the Incident Management Assist Team at 757-448-5572 or at 757-858-4290.

In the event a JIC is established, the spiller should be encouraged to provide a spokesman to the JIC to facilitate “one stop shopping” for the media.

For more information on PIAT, visit: http://www.uscg.mil/lantarea/cgimat/.

9252 National Media Points of Contact

9252.1 Wire Services:

Associated Press (AP) – Miami, Fla.
Address: 9100 NW 36th St., Ste. 104
Main #: (305) 594–5825
Fax #: (305) 594-9265
Email: Miami@ap.org

AP – Atlanta, Ga.
Main #: (404) 653-8460
Fax #: (404) 653-8479
Email: apatlanta@ap.org

AP- Savannah, Ga.
Main #: (912) 525-0770
Email: rbynum@ap.org
POC: Russ Bynum

Reuters (HQ) – New York City
Main #: (646) 223-4000
Email: nyc.buro@reuters.com

UPI (HQ) - Washington D.C.
Main #: (202) 898-8000
9252.2 Network Television:

ABC Miami Bureau
Main #: (646) 872-5109
Fax #: (305) 446-8529
Secondary #: 305-448-9036, Ext. 1
POC: Seniboye Tienabeso (producer)
    Email: seniboye.tienabeso@abc.com

CBS Miami Bureau
Main #: (305) 639-4500
Fax #: (305) 477-3040
Secondary #: (305) 571-4400
Email: wfornews@wfor.cbs.com
Twitter: @cbsmiami
Facebook (FB): www.facebook.com/cbsmiami

CNN-Miami Bureau
Main #: (404) 827-1511
Secondary #: (305) 892-5111
Fax #: (404) 878-4580
Secondary Fax#: (305) 892-5121
Email: cnnmiami@cnn.com
Email: southeastdesk@cnn.com
Twitter: @cnnsoutheastdesk

Fox News-Miami Bureau
Main #: (305) 866-8007
Secondary #: (305) 877-1812 (Fox news radio)
Email: Miami@foxnews.com (main email)
Email: eben.brown@foxnews.com (Fox news radio)

9252.3 National Radio:

AP Radio
Main #: (800) 424-8804
Email: tvplanning@ap.org

9253 Northeast Florida Regional Media Points of Contact

9253.1 Florida Daily Newspapers:

Jacksonville:

Florida Times-Union
Address: 1 Riverside Ave., Jacksonville, Fl. 32202-4985
Main #: (904) 359-4598
Fax #:
Email: stuart.aase@jacksonville.com (Stuart Aase, Metro editor)
St. Augustine

Saint Augustine Record
Address: PO Box 1630, St. Augustine, FL 32085-1630
Main #: (904) 829-6562
Fax #: (904) 819-3557
Email: editor@staugustinerecord.com
Twitter: None
FB: None

Associated Press

Orlando
Main #: (407) 425-4547
Fax #: (407) 648-8011
Email: khightower@ap.org (Kyle Hightower)
Email: mschneider@ap.org (Mike Schneider)

Gainesville

Gainesville Sun
Address: PO Box 147147, Gainesville, Fl 32608
Main #: (352) 374-5093
Secondary #: (352) 374-5000, Ext. 1, 1
Fax #: (352) 338-3128
Email: news@gainesville.com
Twitter: @gainesvillesun
FB: www.facebook.com/thegainesvillesun

9253.2 Florida Local Television:

Action News Jax (FOX 30)
Address: 11700 Central Parkway, Jacksonville, Fl. 32224
Main #: (904) 564-1599
Fax # (904) 642-5665
Email: news@actionnewsjax.com
Twitter: @ActionNewsJax
FB: www.facebook.com/action news jacksonville

News4Jax (CBS 4)
Address: 4 Broadcast Place, Jacksonville, Fl 32207
Main #: (904) 393-9845
Fax #: (904) 393-9822
Editor: Frank Powers: fpowers@wjxt.com
Email: news@wjxt.com
Email: producer@wjxt.com
Twitter: @wjxt
FB: www.facebook.com/wjxt4thelocalstation

First Coast News (ABC 25/NBC 12)
1070 East Adams St., Jacksonville, Fl. 32202
Main #: (904) 633-8808
Fax# (904) 633-8899
Florida Local Radio:

**WOKV 690 AM**
8000 Belfort Pkwy.
Jacksonville, Fl 32256
Main #: (904) 245-8866
Fax# (904) 245-8815
Email: news@wokv.com
Email: Roxy.tyler@coxinc.com
Twitter: @wokvnews
FB: www.facebook.com/wokvnews

**WJCT (PBS radio)**
Address: 100 Festival Park Ave., Jacksonville, Fl 32202
Main #: (904) 353-7770
Fax #: (904) 358-6352
Email: news@wjct.org
Twitter: wjct@wjctjax
FB: www.facebook.com/wjct

9254 Central Florida Regional Media Points of Contact

**9254.1 Daily Newspapers:**

**Daytona Beach News-Journal**
Main #: (386) 252-1511, Ext. 2220
Fax #: (386) 258-8465
Email: metro@news-jrnl.com
Twitter: @dbnewsjournal
FB: www.facebook.com/daytonabeach_newsjournal

Melbourne
**Florida Today**
PO Box 419000
Melbourne, FL  32941
Phone# (321)242-3898  Terry Eberle/ Editor Teberle@flatoday.net
Fax# (321) 255-9550/editor’s fax#
Fax# (321) 242-6620/news desk
Phone# (321) 242-3573 –Carlos Harrison / Metro Editor charrison@flatoday.net

Orlando
**Orlando Sentinel**
Address: 633 N. Orange Ave., Orlando, Fl. 32801
Main #: (407) 420-5411, Ext. 3
Fax #: (407) 420-5350
Email: kspear@orlandosentinel.com (Kevin Spear)
Email: kconnolly@orlandosentinel.com (Kevin Connolly)
Email: mlafferty@orlandosentinel.com (Mike Lafferty)
9254.2 Local Television:

Orlando

ABC 9
Address: 490 E. South St., Orlando, Fl. 32801
Main #: (407) 822-8353
Fax# (407) 481-2891
Email: news@wftv.com
Twitter: @wftv
FB: www.facebook.com/wftv

NBC 2
Address: 1021 N. Wymore Rd., Winter Park, Fl. 32789
Main #: (407) 539-7878
Secondary #: (407) 539-7838
Fax #: (407) 539-7948
Email: wesh2news@gmail.com
Twitter: @wesh
FB: www.facebook.com/wesh2

CBS 6
Address: 4466 John Young Parkway, Orlando, Fl 32804
Main #: (407) 521-1323
Fax#: (407) 298-2122
Email: desk@wkng.com
Twitter: @clickorlando
FB: www.facebook.com/wknglocal6

FOX 35
Address: 35 Skyline Dr., Lake Mary, Fl. 32746
Main #: (407) 741-5027
Fax#: (407) 741-5189
Email: fox35news@gmail.com
Twitter: @myfoxorlando
FB: www.facebook.com/fox35news

9255 Georgia Regional Media Points of Contact

9255.1 Georgia Daily Newspapers:

Savannah, Ga.

Savannah Morning News
Address: P.O. Box 1098, 111 W. Bay St., Savannah Ga. 31402
Main #: (912) 652-0338
News Reporter: Josh.Rayburn@savannahnow.com
Military Reporter: Cory.Eickstein@savannahnow.com
Public Safety Reporter: Dash.Coleman@savannahnow.com
Twitter: @savannahnow
FB: www.facebook.com/savannahnow
Brunswick

The Brunswick News
Address: 3011 Altama Ave., P.O. Box 1557, Brunswick, Ga. 31521
Main #: (912) 265-8320
Fax #: (912) 264-4973
Reporter: Hank Rowlen, Ext. 344
Email: newsroom@thebrunswicknews.com
FB: www.facebook.com/thebrunswicknews

Atlanta

Atlanta Journal Constitution
Main #: (404) 526-5151, Ext. 4
Fax #: (404) 526-5746
Email: breakingnews@ajc.com

9255.2 Georgia Local Television:

Savannah

WJCL TV Channel 22 (ABC/FOX)
Address: 10001 Abercorn Street, Savannah, Ga. 31406,
Main #: (912) 921-2222
Fax #: (912) 921-2230
Email: breakingnews@wjcl.com
Email: Kyle.burnsed@wjcl.com
Twitter: @wjcl_news
FB: www.facebook.com/wjclnews

Savannah

WSAV TV Channel 3 (NBC)
Address: 1430 Victory Dr., Savannah, Ga. 31404
Main #: (912) 644-6828
Secondary #: (912) 651-0300, Ext. 2
Fax #: (912) 651-0320
Email: breakingnews@wsav.com
Twitter: @wsav3
FB: www.facebook.com/wsav3

Savannah

WTOC TV Channel 11 (CBS)
Address: 11 The News Place, Savannah, Ga. 34105
Main #: (912) 234-6397
Fax #: (912) 232-4945
Email: newsrelease@wtoc.com
    Jan Smith: jsmith@wtoc.com
    Laura Phelps: lphelps@wtoc.com
Twitter: @wtoc
FB: www.facebook.com/wtoc
9261 Salvage and Diving Contractors

**U.S. Navy Salvage**
(703) 607-2766
(703) 607-7388 Fax

**U.S. Army Corps of Engineers Jacksonville District**
Emergency Management Branch
email to: PublicMail.CESAJ-CC@usace.army.mil
(904) 232-3626 Local
(904) 232-3430 Fax
(800) 515-7913 24hr

**Logan Diving, Inc.**
Web: www.logandiving.com
Email: diveworrx@aol.com

U.S. Operations:
Logan Diving & Salvage
2815 St. Johns Bluff Road
Jacksonville, Florida 32246
904-731-0000
Cell: (904) 476-4510 (Not confirmed)
Cell: (904) 571-2871 (Not confirmed)

Caribbean Operations:
Logan Diving & Salvage
64 Calle Barbosa
La Puntilla
Catano, Puerto Rico 00962
787-788-0295

**Barnes Underwater Service Co.**
4802 Empire Ave.
Jacksonville, FL 32207
(904) 396-0631 24hr
Fax: (904) 396-2331

**Lewis Diving & Salvage**
1020 Girvin Road
Jacksonville, FL 32225
(904) 221-0221
Fax: (904) 221-1221
Email: lewisdiver@aol.com

**T&T Salvage, LLC**
8717 Humble Westfield Rd.
Humble, TX 77338
24 hour: +1 713 534 0700
Houston Office: 281 446-4010
Email to: info@ttsalvage.com
Website: www.ttsalvage.com

**Professional Marine Consulting Co.**
Atlantic Construction & Marine Services, Inc.
528 Selma Street
Savannah, GA 31401
(912) 355-9561
(912) 232-6333
Email: acms@worldnet.att.net

Savannah Marine Services
P.O. Box 788
Hutchinson Island
Savannah, GA 31402
(912) 232-3943
(912) 232-2717 Fax

Eason Diving & Marine Contracting
http://www.easondiving.com/
E-Mail info@easondiving.com
2668 Sprull Av.
Charleston, SC 29415
(843) 747-0548

9262 Fishing Cooperatives and Fleets

Kings Seafood
79 Dunlawton Avenue
Port Orange, FL
(386) 756-7833
(386) 760-6398 Fax
http://www.kings-seafood.com/

Lang’s Seafood
100 St. Mary’s Street
St. Mary’s, GA
(912) 882-4452
(912) 882-6292 Fax

Captain Van’s Seafood
1214 Beach Street
Fernandina Beach, FL
(904) 261-5581

Fisherman’s Market
714 Bluewater Drive
Cape Canaveral, FL 32920
Phone: (321) 783-8485
Fax: (910) 754-9260

Fisherman’s Market
714 Scallop Drive
Port Canaveral, FL
Bluepoints International Fisheries
677 Dave Nisbet Drive, Suite 201
Cape Canaveral, FL 32920
Phone: (321) 799-2860
Fax: (321) 784-9277
Email: bpoint2@aol.com

Cape Canaveral Shrimp Co.
750 Scallop Drive
Cape Canaveral, FL 32920
Phone: (321) 868-0500
Fax: (321) 868-7939
Email: sherrim@cfl.rr.com

Canaveral Port Authority
445 Challenger Road, Suite 301
Cape Canaveral, FL 32920
Phone: (321) 783.7831
Fax: (321) 783.4651
http://www.portcanaveral.com/mobile/contact.php

Fleet Marine Service
P.O. Box 1389
Cape Canaveral, FL
(321) 783-6140

East Coast Marine Brokers, Inc.
677 Danes Nisbiet Drive, Suite 115
Cape Canaveral, FL
(321) 784-5982
(321) 452-6422
(321) 784-6902 Fax
http://www.shipsusa.com/
Email ecmarine@shipsusa.com

Fernandina Seafood
P.O. Box 1257
Fernandina Beach, FL
(904) 261-5830

9263 Wildlife Resource Organizations
The response capabilities of local agencies vary throughout the state. Virtually all counties participate in
planning, coordination, and notification activities associated with hazardous chemical spills and other
emergencies. Traditional field response capabilities of fire and police departments including traffic control,
communications, and equipment support are often useful during responses.

9263.1 Volunteer Organizations
Utilization of volunteers is subject to the guidance in National Contingency Plan (NCP), 40 CFR
300.57.

After a major pollution incident, especially one which receives extensive press coverage, it can be expected
that concerned individuals and groups will contact the OSC to volunteer their services. Generally, volunteers
will not be used during a federally funded response without the permission of the OSC. A volunteer’s
unknown background, a potentially confusing chain of command, and liability issues preclude the use of volunteers in most situations. Should the OSC decide to use volunteers, the OSC needs to obtain Coast Guard legal advice. State and local agencies might utilize volunteers in accordance with their own policies.

Coordination of volunteers for bird cleaning is the responsibility of the DOL, and FDNR (see NCP 40 CFR 300.57).

9263.2 Environmental Interest Groups
Northeast and Eastern Central Florida are home to a wide variety of wildlife. Environmental groups can play a vital role in both advising us of incidents, and helping to protect the wildlife resources during a pollution incident. The following groups may be able to provide assistance during a pollution incident.

**St. Johns Riverkeeper, Inc.**
http://www.stjohnsriverkeeper.org
Neil Armingeon, Riverkeeper
narming@ju.edu
St. Johns Riverkeeper
2800 University Blvd.N.
Jacksonville, FL 32211
Phone:904-256-7591

The **Sierra Club** is an organization devoted to explore, enjoy, and protect the wild places of the Earth.

| SIERRA CLUB OF NORTHEAST FLORIDA | 904-880-1813  
| 904-992-9743  
| 904-247-1876  
| janet.stanko@florida.sierraclub.org  
| gabehanson@yahoo.com  
| http://florida.sierraclub.org/northeast/ |

The **Save the Manatee Club** is an organization devoted to saving the manatee, an unique and endangered species of mammal.

| SAVE THE MANATEE CLUB | Tel: (407) 539-0990  
| 1-800-432-JOIN (5646)  
| Fax: (407) 539-0871,  
| jvallee@savethemanatee.org  
| http://www.savethemanatee.org/ |

BEAKS.
[Reserved for future Area Planning Committee Development]

The **Audubon Society** is an organization dedicated to the study and protection of natural wildlife.

| AUDUBON SOCIETY | (904) 733-0550  
| http://fl.audubon.org/  
| http://www.duvalaudubon.org/  
| DuvalAudubon@gmail.com |

The **Keep Brevard Beautiful, Inc.** is an organization dedicated to providing education to the public about litter prevention and control, recycling and the beautification of Brevard County.
The Stewards of the St. Johns River is a citizens’ coalition dedicated to restoring and protecting the St. Johns River and its tributaries through public education and by coordinating shoreline cleanup activities. The group has also established the "River Watch", where citizens may call a central number (1-800-338-7757) to report problems or pollution in the river, these reports are then forwarded to the appropriate government agency.

STEWARDS OF THE ST. JOHNS RIVER, INC
http://www.stewardsonline.org/
Stewards of the St. Johns River
P.O. Box 8670
Fleming Island, FL 32006
800-338-7757
(904) 269-7715 Fax

The St. Johns River Alliance.
[Reserved for future Area Planning Committee development]
2029 North 3rd Street
Jacksonville Beach, Florida 32250
(904) 247-1972 x 414
http://www.stjohnsriveralliance.com/

9263.3 Environmental Interest / Site Links

The Great Florida Birding Trail is a program of the Florida Fish and Wildlife Conservation Commission, supported in part by the Florida Department of Transportation and the Wildlife Foundation of Florida. It is a 2000-mile highway trail that unifies existing and new birding sites throughout Florida. Modeled after the successful Great Texas Coastal Birding Trail, this ambitious project combines special highway signs identifying Birding Trail sites with a detailed map showcasing the wonderful birding opportunities in Florida. The Trail will consist of a series of clusters, each containing 5-10 sites highlighting communities and special ecosystems like the Lake Wales Ridge.
http://floridabirdingtrail.com/

Florida Fish and Wildlife Conservation Commission is the local on-line gateway to Conservation, Fishing, Hunting, and Wildlife Information. Its mission: Managing fish and wildlife resources for their long-term well being and the benefit of people. Wildlife Alert Program - 888-404-FWCC (3922)
http://www.floridaconservation.org

Florida Fishing Piers.
http://takemefishing.org/state/fl/fl-fishing-resources/?gclid=CLuvhcqwmbsCFUcaOgodnB8A8Q.

The Florida National Scenic Trail began with volunteers of the Florida Trail Association more than twenty-five years ago. Today, bordered by rivers and lakes, and surrounded by forests of palms, pine, cypress, and moss-draped live oaks, the trail offers a unique hiking experience. Utilizing public lands where possible and developed under agreements with private landowners elsewhere, the trail threads its way through the state. The winter and spring months, when the air is crisp and the dry season is upon the land, are best for hiking in Florida. In the South, just an hour's drive west of Miami, the Florida Trail starts its northern journey to the Gulf Islands National Seashore in Northwest Florida's Panhandle. Even though 1000
miles of the Florida Trail are available for extended hiking opportunities, missing sections do exist. Today, FTA volunteers and state, and Federal agencies are working to fill the gaps and maintain the trail. Its future depends on continued support and contributions from FTA members.

http://www.florida-trail.org/
Address: 5415 SW 13 Street Gainesville, FL 32608
Phone: (352) 378-8823
Email: fta@floridatrail.org

Florida Wildlife Federation is a private, statewide, non-profit citizen's conservation education organization composed of thousands of concerned Floridians from all walks of life who have a common interest in preserving, managing, and improving Florida's fish, wildlife, soil, water, and plant life.

http://www.fwfonline.org/
St. Augustine
201 Owens Ave, Ste A
St. Augustine, FL 32080
904-461-1160
northeastfwi@fwfonline.org

Greenways are corridors of protected open space that are managed for conservation and/or recreation purposes. They follow natural land and water features, like ridges or rivers, or human landscape features like abandoned railroad corridors or canals and link natural reserves, parks, cultural and historic sites with each other, in many cases with populated areas.

http://www.dep.state.fl.us/gwt/
http://www.greenway.org/
Office of Greenways and Trails
Florida Department of Environmental Protection, Division of Recreation and Parks
3900 Commonwealth Boulevard, MS 795
Tallahassee, Florida 32399-3000
850-245-2052

GORP - Guide to Outdoor Recreation and Active Travel: Destination - Biking Florida
http://www.gorp.com/gorp/location/fl/biking/bik_intr.htm

Northeast Aquatic Plant Management Society. The purpose of the Society is to assist in the management of aquatic vegetation, to provide for the scientific and educational advancement of members, to encourage scientific research in all facets of aquatic plant management, to promote an exchange of information among members and to extend and develop public understanding in the discipline.
https://neapms.net/

Paddling Net
www.paddling.net

St. Johns Audubon Hotspots. Northeast Florida offers many areas that are outstanding birding sites. These areas extend from Fernandina Beach to Vero Beach and as far inland as Gainesville and Ocala.

Wildernet – North Florida. The Northeast Travel Region awaits the Atlantic Coast explorer who loves big-city adventure, ritzy resorts, world-class golf tournaments, and a region steeped in history. The region lies just south of the Georgia state line along the Atlantic Ocean stretching southwest to encompass America's oldest city, St. Augustine.
http://www.wildernet.com/pages/area.cfm?areaID=FLTRNE&cu_id=1
Best Read Guides: Jacksonville - Buccaneer Trail  

Florida Folk Life Program  

Maritime Heritage Trail:  

St. Johns River Lighthouse (of 1859) was the third lighthouse built at the entrance to the St. Johns River. Previous lighthouses were built in 1830 and 1833.  

American Rivers is a national non-profit conservation organization dedicated to protecting and restoring America's rivers and to fostering a river stewardship ethic.  

9264 Laboratories

**U.S. COAST GUARD**  
Marine Safety Laboratories  
1 Chelsea Street  
New London, CT 06320-5500  
Tel: (860) 271-2704  
Resources: Able to identify oil types and to determine similarities between oil samples.

**ENVIRONMENTAL CONSERVATION LAB**  
4810 Executive Park Ct. Suite 111  
Jacksonville, FL 32216  
Tel: (904) 296-3007  
Resources: hazardous/toxic waste

**E-LAB – Purchased by Pace Analytical**  
8 East Tower Circle  
Ormond Beach, FL 32174  
Tel: (386) 672-5668  
Resources: hazardous/toxic waste, waste oils, metals & organics, soil and groundwater.

**Test America**  
8010 sunport Drive  
Orlando, FL 32809  
Tel: (407) 851-2560  
1-800-851-2560  
Resources: hazardous/toxic waste, waste oils, metals & organics

9265 Emergency Medicine and Hospitals

9265.1 Hospitals
<table>
<thead>
<tr>
<th>Hospital Name</th>
<th>Address</th>
<th>Phone Number</th>
<th>Fax Number</th>
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<tbody>
<tr>
<td>Cape Canaveral Hospital, Cape Canaveral, FL</td>
<td>701 W. Cocoa Beach Cswy, Cocoa Beach, FL 32931</td>
<td>321-799-7111</td>
<td>321-799-7150</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.health-first.org/about_us/contact_us.cfm">http://www.health-first.org/about_us/contact_us.cfm</a></td>
<td>321 868-7249 Fax</td>
<td></td>
</tr>
<tr>
<td>Halifax Hospital, Daytona Beach, FL</td>
<td>303 N. Clyde Morris Blvd, Daytona Beach, FL 32114</td>
<td>386.254.4000</td>
<td>(386) 254-4101</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.halifaxhealth.org/contact-us">http://www.halifaxhealth.org/contact-us</a></td>
<td>(386) 254-4377 Fax</td>
<td></td>
</tr>
<tr>
<td>Medical Center of Port Orange</td>
<td>1041 Dunlawton Ave, Port Orange, FL 32127</td>
<td>386.322.4700</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.halifaxhealth.org/contact-us">http://www.halifaxhealth.org/contact-us</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baptist Medical Center Nassau, Nassau County Hospital, Fernandina, FL</td>
<td>1250 South 18th Street, Fernandina Beach, FL 32034</td>
<td>904.321.3500</td>
<td>(904) 308-7301</td>
</tr>
<tr>
<td>Baptist Medical Center, Jacksonville, FL</td>
<td>800 Prudential Drive Jacksonville, FL 32207</td>
<td>904-202-2000</td>
<td>(904) 202-2046</td>
</tr>
<tr>
<td>Baptist Medical Center South, Jacksonville, FL</td>
<td>14550 Old St. Augustine Road Jacksonville, FL 32258</td>
<td>904.271.6000</td>
<td></td>
</tr>
<tr>
<td>Baptist Medical Center Beaches, Jacksonville, FL</td>
<td>1350 13th Avenue South Jacksonville Beach, FL 32250</td>
<td>904.627.2900</td>
<td></td>
</tr>
<tr>
<td>Baptist Heart Hospital</td>
<td>800 Prudential Drive Jacksonville, FL 32207</td>
<td>904.202.2000</td>
<td></td>
</tr>
<tr>
<td>Florida Hospital Flagler</td>
<td>60 Memorial Medical Parkway Palm Coast, FL 32164</td>
<td>(386) 586-2000</td>
<td>386-586-2010 (E-Dept)</td>
</tr>
<tr>
<td></td>
<td><a href="https://fh.floridahospital.com/flagler/contact-us/phone-directory">https://fh.floridahospital.com/flagler/contact-us/phone-directory</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wolfson Children's Hospital</td>
<td>800 Prudential Drive Jacksonville, FL 32207</td>
<td>904.202.8000</td>
<td></td>
</tr>
<tr>
<td>Bert Fish Medical Center</td>
<td>401 Palmetto Street New Smyrna Beach, Florida 32168</td>
<td>386-424-5000</td>
<td>(386) 424-5152 (ER)</td>
</tr>
<tr>
<td></td>
<td><a href="http://bertfish.com/contact/">http://bertfish.com/contact/</a></td>
<td>(386) 424-5113 Fax</td>
<td></td>
</tr>
<tr>
<td>Orange Park Medical Center</td>
<td>2001 Kingsley Avenue Orange Park, FL 32073</td>
<td>904-639-8500</td>
<td>(904) 276-8580</td>
</tr>
<tr>
<td></td>
<td><a href="http://orangeparkmedical.com/about/contact.dot">http://orangeparkmedical.com/about/contact.dot</a></td>
<td>(904) 276-8607 Fax</td>
<td></td>
</tr>
<tr>
<td>Florida Hospital Memorial Medical Center Oceanside Campus</td>
<td>264 South Atlantic Ave Ormond Beach, FL 32176</td>
<td>(386) 676-6022</td>
<td>(386) 676-6255 Fax</td>
</tr>
<tr>
<td>Florida Hospital Memorial Medical Center</td>
<td>301 Memorial Medical Parkway Daytona Beach, Florida 32117</td>
<td>(386) 231-6000</td>
<td>(386) 231-3023 Emergency Department</td>
</tr>
<tr>
<td></td>
<td><a href="https://www.floridahospital.com/memorial-medical-center/contact">https://www.floridahospital.com/memorial-medical-center/contact</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Putnam Community Medical Center</td>
<td>Highway 20 West P.O. Box 778 Palatka, FL 32177</td>
<td>(386) 328-5711</td>
<td>(386) 326-8178 Fax</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.pcmcfl.com/contact_us.aspx">http://www.pcmcfl.com/contact_us.aspx</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flagler Hospital, St. Augustine, FL</td>
<td>400 Health Park Blvd,</td>
<td>St. Augustine, FL 32086</td>
<td>904-819-5155</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.flaglerhospital.org/Contact-Us.aspx">http://www.flaglerhospital.org/Contact-Us.aspx</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parish Hospital, Titusville, FL</td>
<td>951 North Washington Ave, Titusville, Florida 32796</td>
<td>321-268-6111</td>
<td>(321) 268-6130</td>
</tr>
<tr>
<td></td>
<td><a href="https://www.parrishmed.com/about/contact/default.aspx">https://www.parrishmed.com/about/contact/default.aspx</a></td>
<td>(321) 268-6849 Fax</td>
<td></td>
</tr>
</tbody>
</table>
### 2. Emergency Medical Services (EMS)

The local fire and rescue departments in the following cities provide emergency medical services:

<table>
<thead>
<tr>
<th>City</th>
<th>Address</th>
<th>Phone Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlantic Beach, FL</td>
<td>800 Seminole Road • Atlantic Beach, Florida 32233</td>
<td>(904) 249-5869</td>
</tr>
<tr>
<td>Cape Canaveral, FL</td>
<td>190 Jackson Avenue Cape Canaveral, FL 32920</td>
<td>(321) 783-4424</td>
</tr>
<tr>
<td>Cocoa Beach Fire Dept.</td>
<td>25 S. Orlando Avenue Cocoa Beach, FL 32932-2430</td>
<td>(321) 868-3330 Day</td>
</tr>
<tr>
<td>Daytona Beach, FL. Fire &amp; Police</td>
<td>301 S. Beach St. Daytona Beach FL, 32114</td>
<td>(386) 671-4000 24hr</td>
</tr>
<tr>
<td>Fernandina, FL. Fire Department</td>
<td>204 Ash St, Fernandina Beach FL 32034</td>
<td>(904) 277-7331 24hr</td>
</tr>
<tr>
<td>Flagler Beach, FL. Fire Dept.</td>
<td>320 South Flagler Avenue Flagler Beach, FL 32136</td>
<td>(386) 517-2010 Fax: 386-517-2011</td>
</tr>
<tr>
<td>Green Cove Springs, FL Emergency Operations Center</td>
<td>2519 SR 16 West Green Cove Springs, FL 32043</td>
<td>(904) 269-1047 (904) 284-7424 Lt. P. Ginther 1 (877) CLAY-EOC</td>
</tr>
<tr>
<td>Jacksonville, FL.</td>
<td><a href="http://www.coj.net/departments/fire-and-rescue.aspx">http://www.coj.net/departments/fire-and-rescue.aspx</a></td>
<td>(904) 633-2211</td>
</tr>
<tr>
<td>Kingsland, GA. Fire Dept.</td>
<td>595 E. King Ave Kingsland, GA 31548</td>
<td>(912) 729-8270</td>
</tr>
<tr>
<td>Neptune Beach, FL. Fire and Emergency Services</td>
<td>Headquarters Fire Station #1 325 Second Ave South South Beach Fire Station #2 2500 South Beach Pkwy</td>
<td>(904) 247-6201 904-247-6155 Fax</td>
</tr>
<tr>
<td>New Smyrna Beach, FL</td>
<td>238 Industrial Park Ave. New Smyrna Beach, FL 32168</td>
<td>(386) 402-8125</td>
</tr>
<tr>
<td>Orange Park, FL</td>
<td>2025 Smith Street Orange Park, Florida 32073</td>
<td>(904) 278-3013 904-284-7703 (switch)</td>
</tr>
<tr>
<td>Ormond Beach, FL. Fire</td>
<td>Fire Station 91 364 S. Atlantic Ave. Ormond Beach, FL 32176</td>
<td>Ph: 386-676-3255 Fx: 386-676-3564</td>
</tr>
<tr>
<td>Palatka, FL.</td>
<td>500 N Moody RD Palatka, FL 32177</td>
<td>Phone: (386) 329-0155 Fax: (386) 329-0155</td>
</tr>
</tbody>
</table>

**Address:**

- Homes Regional Medical, Melbourne, FL 1350 South Hickory Street Melbourne, FL 32901
- [hrmc](http://hfwww1.health-first.org/hospitals_services/hrmc/)

**Contact Information:**

- Phone: 321-434-7000 (321) 434-7298 (321) 434-5323 Fax
<table>
<thead>
<tr>
<th>Location</th>
<th>Contact Information</th>
</tr>
</thead>
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<tr>
<td>St. John’s County Fire &amp; Rescue</td>
<td>(904) 209-1700 Fax: (904) 209-1716</td>
</tr>
<tr>
<td>3657 Gaines Rd St. Augustine, FL 32084</td>
<td><a href="http://www.sjcfl.us/FireRescue/index.aspx">http://www.sjcfl.us/FireRescue/index.aspx</a></td>
</tr>
<tr>
<td>St. Marys Fire Department</td>
<td>Phone: (912) 882-6289 Fax: (912) 673-6416</td>
</tr>
<tr>
<td>201 Dandy St. Marys, GA 31558</td>
<td><a href="http://www.ci.stmarys.ga.us/department/fire_department/index/index.php">http://www.ci.stmarys.ga.us/department/fire_department/index/index.php</a></td>
</tr>
<tr>
<td>Titusville, FL</td>
<td>Phone: 321-383-5708</td>
</tr>
<tr>
<td>550 S. Washington Avenue Titusville, FL 32796</td>
<td><a href="http://www.titusville.com/SectionIndex.asp?SectionID=21">http://www.titusville.com/SectionIndex.asp?SectionID=21</a></td>
</tr>
<tr>
<td>Melbourne, FL</td>
<td>321-605-6000</td>
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9270 Phone Contact List

FIRE/RESCUE/MEDICAL/POLICE

<table>
<thead>
<tr>
<th>EMERGENCY</th>
<th>911</th>
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</thead>
<tbody>
<tr>
<td>American Red Cross, Jacksonville, Northeast Florida Chapter</td>
<td>904-358-8091</td>
</tr>
<tr>
<td>751 Riverside Ave Jacksonville, FL 32204</td>
<td></td>
</tr>
<tr>
<td><a href="http://www.redcross.org/fl/jacksonville">http://www.redcross.org/fl/jacksonville</a></td>
<td></td>
</tr>
<tr>
<td>U.S. Army Corps of Engineers Jacksonville District</td>
<td>(904) 232-3626 Local</td>
</tr>
<tr>
<td>Emergency Management Branch</td>
<td>(904) 232-3430 Fax</td>
</tr>
<tr>
<td><a href="http://www.saj.usace.army.mil/Contact.aspx">http://www.saj.usace.army.mil/Contact.aspx</a></td>
<td>(800) 515-7913 24hr</td>
</tr>
<tr>
<td>email to: <a href="mailto:PublicMail.CESAJ-CC@usace.army.mil">PublicMail.CESAJ-CC@usace.army.mil</a></td>
<td></td>
</tr>
<tr>
<td>Atlantic Beach Police Department.</td>
<td>(904) 247-5859 Fax</td>
</tr>
<tr>
<td>850 Seminole Road Atlantic Beach, FL 32233</td>
<td></td>
</tr>
<tr>
<td>Brevard County Sheriff</td>
<td>Dispatch</td>
</tr>
<tr>
<td>Brevard County Sheriff's Office, 700 Park Ave., Titusville FL 32780</td>
<td>Central Area 321-633-7162</td>
</tr>
<tr>
<td><a href="http://www.brevardsheriff.com/home/">http://www.brevardsheriff.com/home/</a></td>
<td>North Area 321-264-5100</td>
</tr>
<tr>
<td></td>
<td>South Area 321-952-6371</td>
</tr>
<tr>
<td></td>
<td>772 Area Code 772-663-6269</td>
</tr>
<tr>
<td>Brevard County Emergency Management Dispatch</td>
<td>Tel: (321) 690-6846 Fax: (321) 690-6842</td>
</tr>
<tr>
<td>2725 Judge Fran Jamieson Way Viera, Florida 32940</td>
<td></td>
</tr>
<tr>
<td><a href="http://www.brevardcounty.us/E911Administration/AnsweringPoints/BrevardCountyFireRescue">http://www.brevardcounty.us/E911Administration/AnsweringPoints/BrevardCountyFireRescue</a></td>
<td></td>
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<tr>
<td>Cape Canaveral Police Department</td>
<td>407-632-2511</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Cape Canaveral, FL</td>
<td>321-783-4424</td>
</tr>
<tr>
<td>190 Jackson Avenue Cape Canaveral, FL 32920</td>
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<tr>
<td><a href="http://www.cityofcapecanaveral.org/index.asp?Type=B_BASIC&amp;SEC=%7B968AC7E3-4E1B-40A6-A0F0-F016AA62EFA2%7D">http://www.cityofcapecanaveral.org/index.asp?Type=B_BASIC&amp;SEC=%7B968AC7E3-4E1B-40A6-A0F0-F016AA62EFA2%7D</a></td>
<td>(321) 868-3330 Day</td>
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<tr>
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<tr>
<td>Cocoa Beach Fire Dept.</td>
<td></td>
</tr>
<tr>
<td>25 S. Orlando Avenue Cocoa Beach, FL 32932-2430</td>
<td></td>
</tr>
<tr>
<td><a href="https://www.cityofcocoabeach.com/Cityhall/Fire_Web_Page/fire_rescue_page.html">https://www.cityofcocoabeach.com/Cityhall/Fire_Web_Page/fire_rescue_page.html</a></td>
<td>(321) 868-3250 24hr</td>
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</table>

Version Date: V_2.0 01Jun14
| Cocoa Beach Police Department                  | (321) 868-3251 |
| 20 South Orlando Avenue PO Box 322430 Cocoa Beach, FL 32932-2430 |                     |
| [https://www.cityofcocoabeach.com/Cityhall/police.htm](https://www.cityofcocoabeach.com/Cityhall/police.htm) |                     |
| Duval County Civil Defense                     | 904-630-2472 |
| Fernandina, FL. Fire Department                | (904) 277-7331 24hr |
| 204 Ash St, Fernandina Beach FL 32034         | (904) 277-7334 Chief’s Pager |
| Fernandina Beach Police Department             | Phone: (904) 277-7342 Fax:(904) 277-7348 |
| 1525 Lime Street Fernandina Beach, FL 32034    |                     |
| Florida Division of Emergency Management (DEM) | 850-413-9969 |
| 2555 Shumard Oak Boulevard Tallahassee, Florida 32399-2100 |                     |
| [http://www.floridadisaster.org/contact/contact.asp](http://www.floridadisaster.org/contact/contact.asp) |                     |
| Florida Department of Environmental Protection | 850-245-2118 (phone) 850-245-2128 (fax) |                     |
| 3900 Commonwealth Boulevard M.S. 49 Tallahassee, Florida 32399 |                     |
| [http://www.dep.state.fl.us/mainpage/contact.htm](http://www.dep.state.fl.us/mainpage/contact.htm) |                     |
| Florida Department of Highway Safety and Motor Vehicles | 904-630-1916 |
| 1505 Atlantic Blvd 32266                       |                     |
| [http://www.flhsmv.gov/offices/duval.html](http://www.flhsmv.gov/offices/duval.html) |                     |
| Florida Fish and Wildlife Conservation Commission Northcentral Region | 386-758-0525 |
| Jacksonville Beach Field Office Naval Air Station |                     |
| Bldg 118, Albermarie Ave. Jacksonville, FL 32212 |                     |
| [http://myfwc.com/contact/fce-law-enforcement/](http://myfwc.com/contact/fce-law-enforcement/) |                     |
| Jacksonville Beach Police Department           | Ph: (904) 270-1667 Fax: (904) 247-6342 |
| 101 Penman Road South Jacksonville Beach, FL 32250 |                     |
| Jacksonville Electric Association               | 904-632-5200 |
| Jacksonville Fire and Rescue Department        | 904-630-0434 904-630-0529 |
| 515 Julia St, Jacksonville, FL 32202           |                     |
| Jacksonville Police Department                 | 904-630-0500 |
| Jacksonville Public Works                      | 904-255-8786 904-630-1620 |
| 214 N. Hogan Street, 10th Floor Jacksonville, Florida 32202 |                     |
| [http://www.coj.net/departments/public-works.aspx](http://www.coj.net/departments/public-works.aspx) |                     |
| Jacksonville Sheriff                           | 904-630-2185 |
| Nassau County Department of Emergency Services  | Phone:(904) 548-4094 Fax:(904) 548-4194 |
| 77150 Citizen's Circle Yulee, FL 32097          |                     |
| Nassau County Sheriff                          | 904-225-5174 904-548-4009 1-855-725-2630 |
| 76001 Bobby Moore Circle, Yulee, FL 32097       |                     |
| Neptune Beach, FL. Fire and Emergency Services | (904) 247-6201 904-247-6155 Fax |                     |
| Headquarters Fire Station #1 325 Second Ave South |                     |
| South Beach Fire Station #2 2500 South Beach Pkwy |                     |
| Naval Air Station Jacksonville Fire Department  | 904-542-2451 |
| Naval Air Station Jacksonville Police Station   | 904-772-2661 |
| Naval Station Mayport Fire Department          | 904-270-5334 |
| Naval Station Mayport Police Station           | 904-270-5583 |
## COAST GUARD

<table>
<thead>
<tr>
<th>Organization</th>
<th>Contact Information</th>
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<tbody>
<tr>
<td>Sector Jacksonville</td>
<td><a href="http://www.uscg.mil/d7/sectJacksonville/Reserves/index.asp">website</a></td>
<td>904-564-7500</td>
</tr>
<tr>
<td>Sector Jacksonville Command Center</td>
<td></td>
<td>904-564-7511</td>
</tr>
<tr>
<td>Seventh Coast Guard District Command Center</td>
<td><a href="http://www.uscg.mil/d7/d7dr/D7DRMC.asp">website</a></td>
<td>305-415-6800</td>
</tr>
<tr>
<td>USCG Station Port Canaveral</td>
<td>Phone: (321) 868-4200</td>
<td></td>
</tr>
<tr>
<td>Marine Safety Center Salvage Team</td>
<td><a href="http://www.uscg.mil/hq/msc/">website</a></td>
<td>(703) 872-6729</td>
</tr>
<tr>
<td>National Pollution Funds Center</td>
<td></td>
<td>703-872-6000</td>
</tr>
<tr>
<td>Team 2: CGD7, portions of CGD5 and CGD8, EPA Region II (Caribbean Section), and EPA Region IV. Virgin Islands, Puerto Rico, Florida, Georgia, South Carolina, Tennessee, North Carolina, Kentucky, Alabama, Mississippi, Virginia (Hampton Roads only), Pennsylvania (Pittsburgh only) and West Virginia (Huntington Only). <a href="http://www.uscg.mil/nfcpoc.asp">website</a></td>
<td>703-872-6069</td>
<td></td>
</tr>
<tr>
<td>National Strike Force</td>
<td><a href="http://www.uscg.mil/hq/nsfweb/nsf/nsfcc/nsfccdefault.asp">website</a></td>
<td>252-331-6000</td>
</tr>
<tr>
<td>Atlantic Strike Team (AST)</td>
<td><a href="http://www.uscg.mil/hq/nsfweb/nsf/nsfcontact.asp">website</a></td>
<td>609-724-0008</td>
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<tr>
<td>Gulf Strike Team (GST)</td>
<td><a href="http://www.uscg.mil/hq/nsfweb/nsf/nsfcontact.asp">website</a></td>
<td>251-441-6601</td>
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## HAZARDOUS MATERIALS INCIDENT

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<tr>
<th>Organization</th>
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<tr>
<td>CHEMTREC</td>
<td><a href="http://www.chemtrec.com/responder/resources/Pages/LinksofInterest.aspx">website</a></td>
<td>1-800-262-8200</td>
</tr>
<tr>
<td>Coast Guard National Response Center</td>
<td><a href="http://www.nrc.uscg.mil/">website</a></td>
<td>1-800-424-8802</td>
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## MARINE CHEMISTS

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<th>Organization</th>
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<tr>
<td>Marine Chemists Association, Inc Marine Inspection Services</td>
<td>B (904) 646-4383 C (904) 607-4941</td>
<td></td>
</tr>
<tr>
<td>Marine Chemists Association, Inc Marine Chemist Company</td>
<td>B (904) 314-5484 F (904) 371-8464</td>
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## NAVAL ARCHITECTS

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<tr>
<td>CDI Marine Company</td>
<td><a href="http://cdigs.com/engineering">website</a></td>
<td>(904) 805-0700 (904) 805-0701</td>
</tr>
<tr>
<td>DeJong &amp; Lebet, Naval Architects</td>
<td>1734 Emerson Street Jacksonville, FL 32207 <a href="http://www.dejongandlebet.com/contact_us.htm">website</a></td>
<td>904-399-3673</td>
</tr>
<tr>
<td>Glowacki Engineering</td>
<td>1835 East West Parkway, Suite 10, Fleming Island, FL 32003 <a href="http://www.glowackiengineering.com/">website</a></td>
<td>904-278-8870</td>
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<tr>
<td>Maritime Design, Inc</td>
<td>13000 Sawgrass Village Circle, Suite 38 Ponte Vedra Beach, Florida 32082 <a href="http://www.maritimedesign.us/">website</a></td>
<td>904-273-0334</td>
</tr>
<tr>
<td>PILOTS / LONGSHOREMEN</td>
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<tr>
<td>Canaveral Pilots’ Association</td>
<td></td>
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<tr>
<td>9060 Herring St. Port Canaveral, FL 32920</td>
<td>321-783-4645</td>
<td></td>
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<tr>
<td>Cumberland Sound Pilots Association</td>
<td></td>
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<tr>
<td>112 North 6th Street Fernandina Beach, FL 32034</td>
<td>904-261-3158</td>
<td></td>
</tr>
<tr>
<td>Florida Docking Masters Association</td>
<td>904-620-0640</td>
<td></td>
</tr>
<tr>
<td>International Longshoremen’s Association (AFL/CIO Local 1408)</td>
<td>904-358-1314</td>
<td></td>
</tr>
<tr>
<td>2040 East 21st Street Jacksonville, FL 32206</td>
<td></td>
<td></td>
</tr>
<tr>
<td>St. Johns’ Bar Pilots’ Association</td>
<td>904-246-6716</td>
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<tr>
<td>Cross State Towing Service, Inc</td>
<td>904-745-1603</td>
</tr>
<tr>
<td>D. Glacey Thomas</td>
<td>904-260-5200</td>
</tr>
<tr>
<td>6690 Columbia Park Drive, Suite #2 Jacksonville, Florida 32258</td>
<td>Fax 904-260-0223</td>
</tr>
<tr>
<td><a href="http://www.thomasdiving.com/about/">http://www.thomasdiving.com/about/</a></td>
<td></td>
</tr>
<tr>
<td>Lewis Diving &amp; Salvage</td>
<td>904-221-0221</td>
</tr>
<tr>
<td>St. Johns Navigation &amp; Docking Service</td>
<td>904-743-2801</td>
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<td>Cross State Towing</td>
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<tr>
<td>Crowley Maritime</td>
<td>904-727-2200</td>
</tr>
<tr>
<td><a href="http://www.crowley.com/contact-us/list-of-offices">http://www.crowley.com/contact-us/list-of-offices</a></td>
<td></td>
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<tr>
<td>Dixie Towing Corp</td>
<td>904-751-9510</td>
</tr>
<tr>
<td>Gulf Atlantic Transport</td>
<td>904-355-4543</td>
</tr>
<tr>
<td>Inland Waterway Towing Service</td>
<td>904-757-0181</td>
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<tr>
<td>Jacksonville Towing and Salvage, Inc</td>
<td>904-249-0309</td>
</tr>
<tr>
<td>McAllister Towing of Florida</td>
<td>904-751-6228</td>
</tr>
<tr>
<td>Mobro Marine Inc</td>
<td>1-866-313-9670</td>
</tr>
<tr>
<td>606 Leonard C Taylor Parkway Green Cove Springs, Florida 32043</td>
<td>904-284-9670</td>
</tr>
<tr>
<td><a href="http://www.mobromarine.com/contact_us.php">http://www.mobromarine.com/contact_us.php</a></td>
<td></td>
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<tr>
<td>Moran Towing of Florida, Inc</td>
<td>904-757-6900</td>
</tr>
<tr>
<td>9051 Dames Point Road Jacksonville, FL 32226</td>
<td>Fax 904-757-7994</td>
</tr>
<tr>
<td><a href="http://www.morantug.com/site/portalpages/jacksonville">http://www.morantug.com/site/portalpages/jacksonville</a></td>
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<tr>
<td>Port Canaveral Towing</td>
<td>407-784-4358</td>
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<tr>
<td>St. Johns Navigation &amp; Docking Service</td>
<td>904-743-2801</td>
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<tr>
<td>Seabulk Towing Inc Canaveral</td>
<td>251-432-2611</td>
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<td><a href="http://www.seabulktowing.com/contact.html">http://www.seabulktowing.com/contact.html</a></td>
<td>954-523-2200</td>
</tr>
<tr>
<td>Sea Tow Services</td>
<td>904-714-2000</td>
</tr>
<tr>
<td>Sun State Marine Services, Inc</td>
<td>904-358-7014</td>
</tr>
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Response to oil spills can vary greatly, involving only a few people or thousands. The initial action taken by
responders sets the tone and direction of the response.

9311.1 Purpose

The purpose of this section is to facilitate the rapid establishment of a multi-agency and responsible party incident command team to respond to an oil spill occurring in the coastal zone.

This information should be used in conjunction with the base plan and, if the cause of the incident is a suspected or actual terrorist incident, used in conjunction with the Terrorism Incident Annex.

The guidance in this section includes:

- Unified Command Organization
- Unified Command Objectives
- Considerations of the Coast Guard Incident Commander/Unified Command
- Operations Section
- Operations Section Chief Responsibilities
  - Protection Group
  - Oil Recovery Group
  - Submerged Oil Group
  - Decontamination Group
  - Waterways Management Branch
    - Vessel Traffic Management Group
    - Vessel Decontamination Group
      - Cleanup Assessment Team Supervisor
      - Decontamination Taskforce
    - Survey Group
    - Safety Zone Group
  - Air Operations Branch Director
    - Aerial observation
- Planning Section
  - Environmental Unit Leader Responsibilities
    - Submerged Oil Assessment Team
    - Shoreline Cleanup Assessment Team
    - Wildlife Team
    - Sign Off Team
  - Facility and Vessel Decontamination Prioritization Unit
- Disposal Technical Specialist
- Natural Resource Trustee
- Historic Property Specialist
- Finance Section Chief
- Logistics Section Chief
- Special Teams

9312 Unified Command Organization

The make-up of the Unified Command organization for an oil spill response is usually comprised of the Coast Guard, Florida Department of Environmental Protection, Georgia Department of Natural Resources and Environmental Control and the Responsibility party. Figure 1 is an illustration of the agencies and/or entities that could serve in the Unified Command and General Staff. The list of agencies is not exclusive.
Figure 1. The generic incident command organization for an oil spill response.
9312.1 Unified Command Objectives

Safety is of paramount importance

- All operations will be performed in accordance with approved safety plans
- Establish and enforce safety zone(s)
- Notify and protect water intakes

Maximize protection of environmentally sensitive areas including wildlife and historic properties.

- Ensure actions are underway to control the source and minimize the volume released
- Assess the location and extent of oil impact
- Deploy and monitor pre-identified booming strategies to protect sensitive areas
- Ensure effective containment, cleanup, recovery, and disposal of spilled product
- Determine if submerged oil is present and respond accordingly

Facilitate Maritime Commerce

- Return port to normal operations as soon as possible (ie: Salvage plans for vessels, pipeline repair plan, facility repair plan, etc.)
- Facilitate vessel movement in the affected port area
- Expedite the decontamination of commercial vessels

Cleanup environment to the satisfaction of stakeholders

- Conduct pre-impact beach clean-up
- Conduct aggressive shoreline cleanup and disposal operations
- Recover and rehabilitate injured wildlife

9312.2 Considerations and Actions of the Coast Guard Incident Commander (CGIC)/Unified Command:

Determining Safe to Respond

- Establishing a safety zone
- Under the Endangered Species Act
  - Notify the Regional Response Team representatives of the Department of Interior and Department of Commerce regardless of whether listed species or critical habitat
  - If listed species or critical habitat are present or could be present, initiate an emergency consultation with the United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS)
  - Document any written or oral communications that involve decisions on endangered species or critical habitat
  - Notify the USFWS and NMFS representative on the incident command team of any response situation changes that may impact endangered species or designated critical habitats
  - Ensure that response strategies and tactics are planned to minimize damage to endangered species and designated critical habitats
  - Post response: If listed species or critical habitats were adversely affected by oil spill response activities, a formal consultation is required. Determine if historic properties will be potentially impacted by response activities
  - Refer to the guidance in Section 9711, Protection of Historic Properties: Oil Discharge and Hazardous Materials Release Emergency Response Phase Checklist
• Determining viability of employing countermeasures
  ▪ Dispersants
  ▪ In-situ burning

9313 Operations Section

The Operations Section will be organized to meet the needs of the incident. For large and/or complex oil spill response operations the Operations Section Chief may organize as shown in Figure 2.

![Operations Section Organization Diagram]

Figure 2. The size and makeup of the Operations Section is dependent on the size and complexity of incident. For a major oil spill the Operations organization may be organized as shown above.

9313.1 Operations Section Chief

• Responsible for initial assessment:
  ▪ Determine location and time of spill, product spilled and amount
  ▪ Determine immediate safety hazards
  ▪ Obtain best estimate of oil movement for next 12 hours based on current weather and tides
  ▪ Identify areas that will be impacted
• Implement protective booming strategy [Link to Strategies]
  ▪ Prioritize protective booming (The Area Committee has determined that protecting openings to wetlands is the number one priority for protective booming. The philosophy is that oil can be deflected onto any river bank but must be prevented from going up tributaries into the wetlands.)
• Control the source
  ▪ Ensure actions are being taken to control and secure the source
  ▪ If necessary, recommend establishing a safety zone
- Contain the spill in vicinity of the source
- Consider conducting pre-impact cleanup of shoreline
- Identify staging areas to be used
- As directed conduct dispersant operations
- As directed conduct In-situ Burn operations

### 9313.2 Protection Group

- Activate Oil Spill Response Tools (ASAMAP)
  - Based on location of spill, amount released, weather and other factors determine what areas will be impacted and the time they will be impacted
  - Provide prioritized protective booming list to the Operations Section Chief or Branch Director, if established
- Determine the organizations responding from Responsible Party
- Is the local spilloff cooperative (DBRC) responding?
  - If yes, which boom sites have been ordered deployed?
- If local cooperative is not responding, what organization will be doing the protective booming?
  - Where will resources, materials and personnel, come from
  - Are the personnel familiar with the booming plans
  - What is the time frame for accomplishment
- Issue Notice to Mariners for protective boom sites. Make adjustments to broadcast to ensure that the most up-to-date information is provided
- Ensure that boom sites are lighted and tended.
- Monitor and maintain the boom sites
- Based on overflight information
  - Determine additional sites that will have to be boomed and establish priorities
  - Identify other potential sites (other than openings to wetlands) that may require protective booming
  - Identify staging areas to mobilize
  - Identify resources to be mobilized (equipment and personnel)
  - Repeat above until no further protective booming is needed
- Determine protective boom sites that can be removed and order same

### 9313.3 Oil Recovery Group

- Determine the number of Oil Spill Response Vessels (OSRVs) required and submit request to the Operations Section Chief. Take in account:
  - Those currently on-scene and those that have been ordered
- Obtain dedicated helicopter for on water recovery operations (the efficiency of the on water recovery will be severely impacted without air support)
- Establish communications with helicopter and/or on-water resources
- Obtain latest spill information to verify that the on-water resources are the best location to recover oil
- Determine the adequacy of the OSRVs deployed and look at other resources that might be available
- Look at methods to enhance the recovery operations
  - Look at the planned collection booming schemes in the ASAMAP data layer
  - Look at the possibility of using V-booms to enhance the encounter rates
• Determine the temporary storage required for the spill and type required:
  ▪ In the upriver area, Delaware City and above, land facilities, vacuum trucks, and/or barges may all be viable solutions for temporary storage to offload OSRVs
  ▪ Below Delaware City the temporary storage will be limited to barges to which OSRVs can transfer recovered oil
• Monitor the location of on-water resources and, if direct air support is not available, provide the OSRVs with the latest observations from any sources and the latest trajectory information to assist in keeping the OSRVs in areas where there is recoverable oil

**9313.3.1 Submerged Oil Group (established when submerged oil is determined to exist)**

• Locate and quantify recoverable submerged oil with remote sensing and or contaminated water divers
• Develop appropriate site safety plan
• Identify required resources based on quantity, viscosity, water depth and temperature
• For large quantities of submerged oil consider:
  ▪ Platform (vessel, barge, etc.)
  ▪ Contaminated water divers
  ▪ Pumping equipment
  ▪ Oil/water separation, decanting
  ▪ Temporary storage
  ▪ Transfer equipment
  ▪ Disposal needs
  ▪ Small quantities of submerged oil:
    ▪ Weighted snare or VSORS (Vessel Submerged Oil Recovery System) 1
    ▪ Diver assisted recovery with viscous oil pom poms

**9313.3.2 Decontamination Group**

• Identify types and amounts of equipment to be decontaminated
  ▪ Large vessels (ships and barges) on water
  ▪ Small vessels (recreational and response vessels associated with the incident)
  ▪ Oil Containment boom
  ▪ Skimmers
• Identify and locate suitable facility for decontamination activities
  ▪ Suitably sized area for decontamination operation
  ▪ Suitable area for staging equipment prior to and post decon
  ▪ Consider location based on public use and access preferably industrial area
• Work with the Safety Officer to develop appropriate site safety plan considering approved cleaning agents (include information on the Material Safety Data Sheet)
• Identify and locate required resources
  ▪ Decontamination pools
  ▪ Pressure washers
  ▪ Pumps
  ▪ Water source

---

1 VSORS is used to search for and recover submerged mobile oil. It consists of a pipe with attached chains and snares and is towed behind a vessel on the bottom at slow speeds.
- Wash water temporary storage
- Wash water transport to disposal facility in accordance with waste disposal plan
- Equipment handling (fork lift, crane)
- Develop appropriate tracking and documentation of equipment as it enters and departs decontamination facility

9314 Waterways Management Branch

Figure 3. The Waterways Management Branch organization oversees the safe movement of vessels within the established safety zone.

9314.1 Waterways Management Branch (WMB)

The WMB ensures the safe movement of vessels within the established safety zone. Specific responsibilities include:
- Coordinating all vessel arrivals, departures and requests from vessels to shift berths
- Establish daily priority list of facilities and vessels identified for decontamination. Consult with:
  - The Delaware Bay and River Pilots
  - The Commercial Facility and Vessel Decontamination Priority Matrix developed by the Planning Section
- Document all Branch activities and decisions

9314.2 Vessel Traffic Management Group (VTMG)

Approves or disapproves vessel transits through the established safety zone. Specific responsibilities include:
- Approve or disapproves vessel movement based on the following criteria:
  - Location of oil spill
  - Tides
  - Berth availability
  - Vessel determined to be clean by the Decontamination Group
  - Facility piers determined to be clean by the Decontamination Group
  - Transit times
- Coordinate all vessel arrivals, departures, and request from vessels to shift berths:
• Instructions for vessels requesting entry into the safety zone
• Instructions for vessels requesting to shift within the safety zone
• Instructions for vessels requesting to depart the safety zone
• Coordinate vessel movements with the Safety Zone Enforcement Group

• Provide the following information to the Situation Unit prior to the Unified Command Planning Meeting:
  • Number of vessels awaiting berth
  • Number of vessels authorized inbound transit through the safety zone
  • Number of vessels departed
  • Number of vessels awaiting decontamination
  • Number of vessels actively being decontaminated
  • Total number of vessels decontaminated
  • Number of vessels awaiting inspection
  • Total number of vessel inspections completed

9314.3 Decontamination Group Supervisor

Oversees the implementation of the facility and vessel decontamination plan. Duties include:
• Verify the daily decontamination priority list
• Assign and coordinate decontamination work assignments
• Ensure that safety briefings are conducted prior to each shift
• Ensure that decontamination schedule is communicated daily to impacted stakeholders

Cleanup Assessment Teams. Conduct assessments of facilities and vessels within the spill area to determine extent of oil contamination and if decontamination efforts meet established criteria for cleanliness.

• Receive daily work assignment from the Decontamination Group
• Document (written and photographic) findings for each facility and vessel assessed
• Check integrity of deployed boom around facility piers. Notify Decontamination Group Supervisor if boom is not performing as required
• Check vessels within the safety zone for oiling. Notify Decontamination Group Supervisor of vessel(s) status (contaminated or not contaminated)

Decontamination Task Force. Provide personnel and equipment to conduct commercial facility and vessel decontamination.

• Receive daily tasking and safety brief from the Decontamination Group Supervisor
• Clean facilities and vessels in accordance with the Vessel Decontamination Plan
• Upon completion of decontamination efforts, coordinate with the Decontamination Group Supervisor to have the Cleanup Assessment Team inspect the vessel and verify that the decontamination meets established guidelines for cleanliness

9314.4 Survey Group

Coordinates all diving and survey operations within the established safety zone to assure safety of overall on-water operations.
• Approve/disapprove dive safety plans
• Coordinate all dive and survey operations with the Vessel Traffic Management Group, Safety Zone Group and the On-water Recovery Group

9314.5 Safety Zone Group

• Utilize waterborne resources to enforce integrity of the safety zone.
• Enforce requirements of the safety zone
• Coordinate with the Vessel Traffic Management Group and the Decontamination Group to monitor and enforce all movement of vessels (commercial cleanup) that are arriving, departing or shifting berths within the safety zone

9314.6 Air Operations Branch Director (AOBD)

The AOBD should discuss with the Operations Section Chief the objective of the overflight mission to schedule the aircraft best suited for the mission. Overflight missions may include:

• Mapping the distribution and appearance of the oil
• Verifying modeled forecasts of the oil movement
• Providing responders with an overview of the incident
• Directing cleanup operations
• Providing equipment/personnel

Overflight missions for observations should take into consideration the following:

• In the early morning or early evening there is often not enough contrast to see some oils clearly.
• In the middle of the day, the sun may glare off the water surface, making it hard to distinguish oil.
• The flight track should be set up to minimize the glare with the optimum schedule for mapping oil distribution depending on the angle of the sun in mid-latitudes. The middle of the morning or afternoon is usually a good viewing time.

9315 Planning Section

In addition to the traditional ICS Planning Section Units, response to an oil spill may require additional units be added (Figure 4) to enable the Planning Section to support incident operations.
Figure 4. The Planning Section may require additional units not normally associated with the traditional ICS organization to enable the Planning Section to support response operations.

Depending on the size and complexity of the oil spill response the Planning Section Chief should determine the need to develop other supporting plans such as:

- Tarball and Debris Plan
- Commercial Vessel Decontamination Plan
- Waste Disposal Plan
- Wildlife Recovery Plan
- Water Column Monitoring Plan
- Dispersant Plan
- In-situ Burn Plan

### 9315.1 Environmental Unit

The Environmental Unit responds to the changing demands of oil spills by developing with stakeholders a number of teams that solve specific tasks. The organization chart in Figure 5 includes several of the most common teams that work under the Environmental Unit during an oil spill response.
Figure 5. The Environmental Unit oversees a wide range of technical disciplines.

9315.2 Environmental Unit Leader Responsibilities

- Assess the chemistry of the spilled oil to determine the oil’s fate in the environment
- Provide support to the Safety Officer in development of the Site Safety Plan
- Provide expertise on living marine resources and their habitats and information on associated cleanup and mitigation methods
  - Coordinate with Federal and State Trustees the collection and dissemination of information on the environmental resources at risk, including marine resources
- Develop strategies to minimize environmental impact of the spill based on stakeholder consensus
  - Participate with State responders in the development of priority protection areas based on sensitive habitats [Link to Sensitive Area Maps]
  - Coordinate consultation with the State Historic Preservation Officers concerning the location of cultural and historic resources
- Develop environmental monitoring strategies that will help decision-makers understand the impact of response countermeasures that have been implemented
- Provide technical support to the FOSC during negotiations with representatives from the oil industry, the Port, the Nuclear Power Plant, and the Nuclear Regulatory Commission
- Provide information on meteorological, hydrological, ice, and oceanographic conditions
  - Provide technical report on future ice conditions
o Provide technical report forecasting movement of the spilled oil
o Provide technical report forecasting movement of spilled oil out of the Delaware River System into the Chesapeake Bay

- Assemble and coordinate environmental stakeholders to reach consensus on protection priorities and cleanup strategies and endpoints
  - Consider establishing specialists to evaluate the technical issues and reach consensus
  - Through the Science Team, coordinate with stakeholders the development of endpoints

- Assemble and coordinate trustees and stakeholders for Natural Resource Damage Assessment and Restoration
  - Participate with Damage Assessment Center staff in the implementation of an immediate sampling plan
  - Work with Trustee agencies to begin the process of the Endangered Species Act Section 7 consultation

- Provide timely and complete status reports to the Planning Section Chief
  - Prepare environmental data for the Situation Unit
  - Provide weather, shoreline oiling, mapping and graphics for use in all briefings and situational updates, media briefings and public outreach forums

- As directed by the Unified Command, participate in news conferences, media availabilities, open houses and town hall meetings
- Establish and maintain the Response Link website for internal communications with response agencies
- Act as the liaison between the Unified Command and the Regional Response Team (RRT) providing the RRT with daily updates
- Coordinate requests from the Unified Command to conduct testing of alternative response strategies with the RRT
- Coordinate requests from vendors to test new products using the Alternative Response Tools Evaluation System (ARTES) process
- Coordinate the activities of wildlife agencies
- Coordinate and support Unified Command requests for conducting hydrographic surveys

9315.3 Submerged Oil Assessment Team

- Supports Submerged Oil Group activities
- Design submerged oil assessment strategies
- Ensure sample techniques are approved by the State(s)
- Coordinate placement of water column monitoring devices with the State(s)
- Provide leadership in the development of monitoring strategies for submerged oil
- Compile data reports
- Assess recovery techniques
- Identify potential impacts of oil and recovery techniques

9315.4 Shoreline Cleanup Assessment Team (SCAT)

Shoreline Cleanup Assessment Team(s) are critical to supporting response operations by visually assessing impacted areas and determining the best methods of removal, enabling the Operations Section Chief to focus their response resources and refine their tactical plans [Link to NOAA Shoreline Assessment Manual]. The SCAT Team Leader responsibilities include:
• Determining the number of SCAT teams required
• Configuring the Teams to ensure appropriate stakeholder representation
• Coordinating SCAT team activities
• Developing the SCAT process that would meet the objectives of the Unified Command and the data collection and documentation requirements of the Natural Resource Damage Assessment (NRDA) teams.
• Establishing on-scene Geographic Information System (GIS) mapping capabilities to capture SCAT results and provide information to Situation Unit and stakeholders
• Coordinating with the Responsibility Party’s spill management team to ensure that SCAT information is shared with their scientific personnel

9315.5 Wildlife Team

• Ensure all wildlife recovery personnel are adhering to accepted or incident-specific health and safety guidelines.
• Advise FOSC of the presence of any federally or state-listed species, and/or their supporting habitats.
  o Make recommendation to minimize or avoid adverse impacts to the species or the supporting habitat, in coordination with the appropriate Endangered Species biologists [Link to Fish and Wildlife Protection Options Section 9738]
  o Assist FOSC with initiation of emergency consultation under the Endangered Species Act as warranted
• Advise FOSC of the presence of populations of migratory birds, sensitive species and/or their habitats and offer recommendations to minimize or avoid adverse impacts
• Mobilize federal and/or state wildlife personnel for oversight or to assist in the collection or capture of oiled wildlife [Link to Wildlife (bird) Recovery Operations/Procedures Section 9739]
• Assist law enforcement personnel in, or direct the setting-up of, morgue facilities
• Determine the need to enlist assistance from United States Department of Agriculture-Animal Plant Health Inspection Service (APHIS)-Wildlife Services
• Prepare a written oiled wildlife recovery plan to include, but not limited to:
  o Establishment of a hotline to report oiled wildlife
  o Advising cleanup contractors of wildlife recovery protocols
  o Establishing the veterinarian of record, and euthanasia protocols
  o Establishing protocols to report daily wildlife numbers to the FOSC
• Provide technical assistance in the prioritization sensitive areas for clean-up
• Provide technical assistance to minimize or avoid adverse impacts to trust species or lands held by any State, Tribes or the United States
• Provide technical assistance on clean-up end points and shoreline assessment techniques
• Prepare daily wildlife recovery unit summary for the Unified Command
• Prepare Wildlife Recovery Unit demobilization plan
• For potential support resources consult the Fish and Wildlife Response Facilities and Resources

9315.6 SignOff Team (SOFT)

The Sign Off Team is responsible for providing documentation to the Unified Command stating that areas impacted by the oil spill have been cleaned to agreed upon standards. SOFT members usually include representation from the land trustee, Coast Guard, Scientific Support Coordinator and the responsible party. SOFT responsibilities include:
• Evaluating areas identified by Operations as ‘clean’ to ensure that the agreed upon cleanup endpoints are
• Working with Operations to identify areas that require further cleaning
• Providing signed documentation to the Unified Command that the area evaluated met the cleanup standard.
  Coordinating any field activities with the Operations Section Chief
  Providing Documentation Unit Leader with the original copy of the SOFT documentation

9315.7 Facility and Vessel Decontamination Prioritization Unit

The Facility and Vessel Decontamination Assessment Unit is responsible for supporting the Waterways Management Unit efforts to prioritize which commercial facilities and vessels will be decontaminated. The information provided by this Unit is one of several variables used in the final determination. Primary responsibilities:

• Interview port partners from the maritime industry to determine the variables (i.e. type of cargo, impact on community, etc.) to be used when prioritizing decontamination. Port partners interviewed may include:
  o Delaware Bay and River Pilot’s Association
  o Mariner’s Advisory Committee
  o Maritime Exchange
  o Delaware River Maritime Enterprise Council
  o Philadelphia Regional Port Authority
  o Delaware River and Bay Authority
  o Representative sample of port facilities impacted by the spill

• Develop a mathematical model based on the economic impact that would result from delaying a return to normal operations.
• Use the results of the model to rank order facilities and vessels.
• Provide ranked outcome to Waterways Management to assist with their scheduling of facilities and vessels for decontamination.

9315.8 Disposal Technical Specialist

The Disposal Technical Specialist is responsible for developing a waste disposal plan that meets the requirements of the local regulations. Specific responsibilities include:

• Contact Operations Section Chief to assess disposal needs for types and magnitudes of materials to be handled.
• Identify available tankage for interim recovered liquids storage and location(s) for interim storage of solid wastes and track waste accumulations at each location.
• Prepare a waste disposal plan and submit to the Planning Section Chief and Operations Section Chief for review.
• Contact appropriate waste transportation contractors to determine capabilities and availability
• Designate liquid waste transfer locations and ensure compatibility of equipment with vacuum/tank trucks and/or skimmers/barges.
• Ensure accurate waste accounting and tracking systems are in place
• Review the site safety plan with all waste management personnel and ensure they don the appropriate Personnel Protective Equipment (PPE).
• Make initial determination on hazardous nature of material through knowledge of material spilled and/or chemical analyses.
• Contact potential waste treatment and disposal facilities to determine acceptance criteria and any additional characterization requirements.
• Collect representative samples of oil/oily wastes if required by the treatment or disposal facilities for additional characterization.
• Waste should be segregated:
  o Oil and oil water mixtures recovered from the water and shoreline
  o Oiled organic debris (wood, aquatic vegetation)
  o Oiled sorbents (pads, booms, snares, sweeps)
  o Oiled sediments
  o Oiled PPE, containment boom, general trash
  o Non-oiled and non-hazardous waste materials
• Document all waste collection, segregation, handling, transportation, and treatment/disposal activities to enable accurate tracking and ensure regulatory compliance
• Consult the General Waste Containment and Disposal Checklist.

9315.9 Other Technical Specialist

• Wetland Ecology – Freshwater Tidal Marshes
• Wetland Ecology – Salt Marshes
• Conservation Biology
• Water Quality – Contaminates
• Water Quality - Biogeochemistry

9315.9.1 National Resource Trustees

• Generally serve as key advisors, rather than as designated representatives on Unified Command
• Trustees need to immediately select a federal administrative lead to represent the trustees to the Unified Command
• The lead trustee should coordinate their concerns through the Liaison Officer. If there is no Liaison Officer, the lead trustee must coordinate directly with the Unified Command

9315.9.2 Historical Property Specialist

• Assesses potential effects of emergency response strategies on historic properties in consultation with the parties identified in the ACP.
• Recommends to the FOSC response actions and policies developed in consultation with parties identified in the ACP to help minimize potential impacts to historic properties.

9316 Logistics Section Chief

Coordinate with the Operations Section Chief on dispersant requirements.
9317 Special Teams

The following are some of the special teams and other technical expertise that should be considered as potential response resources when responding to an oil spill:

- National Oceanic Atmospheric Administration (NOAA) Scientific Support Coordinator (SSC)
- Gulf Strike Team
- District 7 District Response Advisory Team
- District 7 Public Affairs Detachment
- Environmental Protection Agency (EPA) Environmental Response Team
- Navy Supervisor of Salvage [Link to NAVSUPSALV example request message Section 9745]
- Coast Guard Atlantic Area Incident Management Assist Team
- National Strike Force Public Information Assist Team
- Army Corps of Engineers
- NOAA Navigational Response Team (access through NOAA SSC)
- EPA On-scene Coordinators from Region IV
- Occupational Safety and Health Administration
- United States Fish and Wildlife Service
- Animal Plant Health Inspection Service
- Historic Property Specialist
- Water Intake Specialist
- Army Corps of Engineers, Emergency Management

9320 HAZMAT Incident (Reserved)

9330 Marine Fire Incident (RESERVED)

9340 Marine Salvage Incident (RESERVED)

9350 Radiological Incident

9351 Introduction

The Coast Guard’s jurisdiction as the Coordinating Agency for a radiological incident is limited in both geographic area and authority and is specified in the National Response Plan.

A great deal of information regarding radiological incidents is outline in Section 9883 of this plan. Figure 1, illustrates the two most important criteria (jurisdiction and terrorism) that determine the Coast Guard’s role as either a Coordinating Agency or as a cooperating agency during a radiological incident.

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2 The Coordinating Agency is that Federal agency which owns, has custody of, authorizes, regulates, or is otherwise deemed responsible for the radiological facility involved in the incident or is otherwise involved in the incident.
Figure 1. In radiological incidents where the Coast Guard has jurisdiction and there is no involvement of terrorism the Coast Guard Incident Commander responds under the NCP. For any radiological incidents where terrorism is involved, the Department of Energy is the Coordinating Agency responding under the NRP and the Coast Guard is a cooperating agency.

## 9352 Purpose

The purpose of this section is to provide guidance to the Coast Guard Incident Commander (CGIC) and their Maritime Security and Area Committee partners in responding to radiological incidents that have actual, potential, or perceived radiological consequences.

A radiological incident involves the release or potential release of radioactive material that poses an actual or perceived hazard to public safety, national security and or the environment.

The role of the Coordinating Agency for radiological incidents in the maritime environment can reside with several different federal agencies depending on geographic location, accountability for the radiological source, and the suspected or actual involvement of terrorism.

## 9353 Coast Guard Jurisdiction

The National Response Plan limits the Coast Guard’s Coordinating Agency role for radiological incidents to “certain areas of the coastal zone” which is defined as radiological incidents that occur on:

- Any type of vessel,3
- Waters seaward of the shoreline to the outer edge of the Exclusive Economic Zone,4 and,
- Specified waterfront facilities5

The scope of incidents the Coast Guard Incident Commander will respond to are:

- Transportation of radioactive materials
  - Shipment of materials that are not licensed or owned by a Federal agency or Agreement

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3 Vessels as defined in 33 CFR 160.5. Exception: Department of Defense vessels.
3 Exception: Department of Energy is the Coordinating Agency for radiological material shipped by or for them and for any nuclear weapon in their custody.
5 Facilities regulated by 33 CFR 105, 126, 127, 128, 140, 154, 155, 156
Foreign, unknown or unlicensed material
- Incidents involving foreign or unknown sources of radioactive material or radioactive material which does not have appropriate licenses
- Space vehicles containing radioactive materials
  - Not managed by DOD or NASA (i.e. commercial satellite)

In addition to geographic limitations, the scope of the Coast Guard’s jurisdiction as the Coordinating Agency is limited to those radiological incidents that do not involve a terrorist act.

For any terrorist event involving non-Department of Defense or non-Nuclear Regulatory Committee (NRC) radioactive material, the Department of Energy (DOE) will assume the role of Coordinating Agency to address the radiological aspects of the response.

9354 Using this Section

Notification of a possible or actual radiological incident can occur in several ways. To facilitate initial actions to be taken and to determine jurisdiction choose the link that matches your method of notification.

- Passive detection from radiation pagers (Level I)
- Intelligence source(s)
- Notification of a radiological release -- NCP response
- Actual terrorist incident involving radiation

9355 Passive Detection (Level I)

A radiological incident may be first discovered while conducting routine operations in the port (discovery may be made by Customs and Border Protection) or through intelligence gathering. The guidance in the Unit’s Radiological Response SOP will be used when Level I detection indicates the presence of a radiological source. Depending on the method of discovery and whether the incident is on a vessel or facility, the CGIC should make some initial determinations as to which Course of Action to take:

- **On a Vessel:** While on board a vessel (underway or moored), if a Level I Team detects either neutron or gamma radiation and has determined that the source is illegitimate or unknown, the Coast Guard Incident Commander, in consultation with the States, should determine the safest location for the vessel to be located. Safe location options are to:
  - If at sea, keep the vessel at sea
  - If vessel is transiting in the port or is moored, direct the vessel to a safe location.

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6 For non-agreement states such as New Jersey the Coast Guard is the Federal Coordinating Agency and will assist the state if necessary.

7 Foreign or unlicensed source may be a reactor, a spacecraft containing radioactive material, imported radioactively contaminated material, or a shipment of foreign-owned radioactive material. Unknown sources of radioactive material, also termed “orphan sources” are those materials whose origin and/or radiological nature are not yet established. These types of sources include contaminated scrap metal or abandoned radioactive material.

Licensed material: The Nuclear Regulatory Committee (NRC) issues licenses to operators and facilities under the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974, as amended. “Licensed material” refers to byproduct, source or special nuclear material associated with these facilities regulated by the NRC. It is most likely that the only way to determine if something is a “Licensed Material” is by contacting the NRC or the Responsible Party (Source NRP).
include: if moored remain at moorings, anchorage, or send out to sea. Take into account the following

- Proximity to population centers
- Critical infrastructure
- Vessel traffic in the vicinity of suspect vessel
- Ability to get teams on and off the vessel
- Source is emitting neutrons (may indicate the presence of spent nuclear material)
- Consult Port of Safe Refuge Document

**On a Facility:** If a Level I Team detects either neutron or gamma radiation and has determined that the source is illegitimate or unknown while at a facility:

- Determine whether to limit facility operations adjacent to the isolation perimeter established by the Level I Team
- If source is emitting neutrons may indicate the presence of spent nuclear material (Note: Neutron sources rarely occur naturally and are usually produced in a reactor. Although they are generally associated with special nuclear material (SNM), there are some legitimate sources of neutron radiation).
- In conjunction with the Facility Security Officer evaluate the need to limit access into the facility or evacuate the facility

**For both vessels and facilities:**
If radiation source is illegitimate, unknown or exceeds the safe exposure limits for a Level I Team, the Level I Team is to notify the chain of command requesting Level II support. Upon receiving the request, Commander Sector Jacksonville should consider the following:

- Deploy Level II Team to localize and characterize the radiation source. Level II resources:
  - Gulf Strike Team
  - Sector Jacksonville
  - Customs and Border Protection
- Notify Jacksonville Field Intelligence Support Team (FIST)
- Contact the Coast Guard Investigative Service (CGIS) Liaison Agent to the Joint Terrorism Task Force (JTTF) to notify the local FBI Office when Level II Team is deployed
  - Jacksonville
- If necessary, Level II Team to coordinate with CBP Laboratory Scientific Support (LSS).
- Notify the State(s)
- Determine need to shift to secure communications
- Consider establishing Safety/Security Zones
- Determine Safe to Respond
- If Level II Team cannot identify the source as legitimate, request assistance from the DOE Radiological Assistance Program (RAP) Team. Notify the National Response Center if RAP support requested
- Determine need to initiate Critical Incident Communications procedures

**9356 Intelligence Sources**

When the Coast Guard receives notification of possible intelligence regarding a potential radiological incident it is critical to determine if the intelligence is credible.

- Work with the Jacksonville FIST and CGIS to determine if threat is credible or non-credible
  - If credible, support the Department of Energy, which is the Coordinating Agency and the Federal Bureau of Investigation.
  - If not credible,
    - Does the Coast Guard have jurisdiction?
    - If yes, conduct follow-up to determine if there is public health threat
9357 Actual Terrorist Incident Involving Radiation

In the event of an actual terrorist incident involving radiation the Coast Guard’s role is as a cooperating agency using primarily the authorities of the Captain of the Port. Initial actions to be taken

- Initiate Critical Incident Communications procedures
- Account for all field deployed teams, individuals and assets
- If first federal on scene, implement the Terrorism Incident Annex until relieved by the Department of Energy

9358 Notification of a Radiological Release Responded to Under the National Contingency Plan

This section discusses non-terrorist radiological incidents where the Coast Guard has jurisdiction and where response operations are conducted under the National Contingency Plan.

9359 Unified Command Organization

The actual make-up of the Unified Command in response to a radiological incident conducted under the National Contingency Plan will depend on the incident location and complexity. The Figure on the next page lists potential agencies and entities that would most likely respond to a non-terrorist radiological incident in the Captain of the Port Sector Jacksonville zone.
The actual makeup of the Unified Command organization in response to a radiological incident will depend on incident location and complexity. The agencies and entities listed in the ICS organization chart represent those most likely to respond to a radiological incident under the National Contingency Plan in the Captain of the Port Sector Jacksonville zone.

For the Operations Section Chief, consider:

- Complexity of the incident
- Knowledge and experience in responding to radiological incidents
- Agency with the greatest jurisdiction, involvement, and statutory authority

### 9359.1 Incident Commander/Unified Command Response Objectives

Incident Commanders/Unified Command should use this Annex in conjunction with the Base Plan when responding to a radiological incident in “certain areas of the coastal zone.”

- Ensure the safety of responders through the use of radiation detection equipment and monitoring devices
- Establish incident site control zones (exclusion, contamination reduction zone, support zone) based on active surveillance:
- Determine the extent of the contamination
- Minimize the spread of contamination
- Isolate hazard from the public and non-responders
- Determine need to establish public health monitoring
- Stabilize the source
- Prevent the spread of radiological material from the incident site
- Implement effective communications with state Emergency Operations Centers
- Coordinate incident security
- Access Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) funding
- Ensure coordination of technical data (collection, analysis, storage, and dissemination)

9359.2 Safety Officer

The two radiation concerns at an incident are exposure and contamination by radioactive material.

- List of hospitals capable of accepting radiation casualties:
  - Jacksonville
- Conduct active surveillance
  - Air monitoring
  - Visual
  - Ground truthing

Actions that can be taken to minimize exposure involve Time, Distance, and/or Shielding:

- Decrease the amount of TIME spent in close proximity to the radiation source.
- Keep as much DISTANCE away from the source as feasible
  - As a rule of thumb, every time you double the distance away from a radiological source, you reduce the exposure rate by four times.
- Use available means of SHIELDING to lower the amount of exposure to the source.

9359.3 State Radiological Emergency Contacts

Please refer to Section 9200 of this plan.

9359.4 Special Teams

The following special teams are equipped to respond to radiological incidents, and should be considered as potential response resources:

- EPA Radiological Emergency Response Team (RERT)
- USCG Strike Teams
- DOE Radiological Assessment Program (RAP) Team
- USACE Rapid Response
- NOAA Scientific Support Coordinator
- Florida Department of Natural Resources and Environmental Control Radiological Response Team (Level II capable)
- Florida Department of Environmental Protection

Additional special teams can be found in the Coast Guard Special Teams Handbook
9360 Terrorism Incident (Including WMD)

9361 Introduction

As per the National Response Plan, in responding to a potential or actual terrorist incident in the maritime environment the Coast Guard will respond with the Federal Bureau of Investigation and other appropriate Federal, State and Local agencies to establish a Unified Command.

The Unified Command will simultaneously manage incident operations involving law enforcement response and response operations aimed at protecting public health, safety and the environment.

9362 Purpose

The purpose of this section is to facilitate the effective integration of law enforcement and public health and safety response activities involving potential or actual terrorist incidents that occur in the maritime environment.

This information should be used in conjunction with one or more of the other sections (oil, hazardous materials, radiological, biological) as appropriate.

The guidance in this section includes:

- Coast Guard jurisdiction
- Federal Bureau of Investigation jurisdiction
- Unified Command Organization
- Determinations to be made by the Coast Guard Incident Commander (CGIC)
- Unified Command Priorities
- Initial Unified Command objectives
- Unified Command considerations
- Operations Section organization model
  - Operations Section Chief
  - Deputy Operations for Maritime Security
  - Deputy Operations for Law Enforcement and Investigation
  - Deputy Operations for Response and Recovery
- Planning Section
  - Deputy Planning Section Chief
- Coordination between the Incident Command Post (ICP) and the Joint Operations Center (JOC)
- Coast Guard Liaison to the JOC
- Special Teams
- Logistics Section
  - Facilities Unit
  - Communications Unit
- Local maritime law enforcement tactical assets
9363 Coast Guard Jurisdiction

The Coast Guard Sector Commander is responsible for maritime law enforcement, public safety, environmental protection and safe maritime transportation.

9364 Federal Bureau of Investigation Jurisdiction

The Department of Justice through the Federal Bureau of Investigation has the lead responsibility for criminal investigations of terrorist acts or terrorist threats and for coordinating activities of other members of the law enforcement community to detect, prevent, preempt, investigate, and disrupt a terrorist attack.

9365 Unified Command Organization

The make-up of the Unified Command organization for a terrorist incident in the maritime environment will be tailored to the type of incident. For example, in a terrorist initiated radiological incident, the Department of Energy (DOE) would be a member of the Unified Command since they are the designated Coordinating Agency for the incident. In addition to the DOE, the Coast Guard, Federal Bureau of Investigation and the state(s) would also have representation in the Unified Command. The following types of incidents would have representation from other entities:

Radiological Incident: Department of Energy (Coordinating Agency)
Biological Incident: Public Health Department
Hazardous Material Incident: Local fire department, “Responsible party”
Oil Incident: “Responsible party”
Explosions: Local fire department
Figure 1. The type of incident and incident complexity will determine the actual agencies that make up the Unified Command and Command and General Staff.

9365.1 Determinations to be made by the Coast Guard Incident Commander (CGIC)

- Initiate Critical Incident Communications procedures
- Determine Safe to Respond
  - Work with the Unified Command to determine the control zones (hot, warm, cold)
  - Unified Command communicates location of zones to response personnel
  - Document Safe to Respond determination
- In consultation with the FBI, the CGIC will determine the need to place a Coast Guard liaison in the Joint Operations Center
  - Coast Guard Investigative Service to provide liaison
- In consultation with the FBI, the CGIC will determine the need to raise the Maritime Security (MARSEC) Level?
9365.2 Determinations to be made by the Federal Bureau of Investigation

- Presence of secondary devices
- Extent of the crime scene

9365.3 Unified Command Priorities

- Preserving life and minimizing risk to public health
- Preventing a terrorist act or expansion of an existing terrorist act
- Locating, controlling and disposing of a WMD
- Apprehending and prosecuting terrorists
- Protecting the marine environment
- Minimizing impacts to maritime commerce

9365.4 Unified Command Objectives

- Conduct site assessment to determine presence of a secondary device
- Institute actions to protect the crime scene
- Communicate with port stakeholders
- Ensure the preservation of evidence
- Secure/Protect port infrastructure to prevent further/expanded attack
- Minimize and/or contain the damage caused by the attack

9365.5 Unified Command Considerations

- Determine need to implement responder identification protocols
- Determine need to place law enforcement personnel on board commercial clean up vessels
- Determine the appropriate level of law enforcement protection to protect responders
9366 Operations Section Organization Model

The Unified Command and the type of incident to which it is responding, will dictate the agency that will fill the role of Deputy Operations for Response and Recovery. Figure 2 is an illustration of the agencies and/or entities that could serve as the Operations Section Chief and Deputy Operations Section Chiefs. The list of agencies is not exclusive.

![Diagram of Operations Section Organization Model]

Figure 2. The Operations Section organization during a terrorist response involving both crisis and consequence management activities.

9366.1 Operations Section Chief

For incidents that involve both law enforcement-investigation and incident management the Operations Section Chief’s primary role shifts to one of coordination, ensuring that all tactical activities planned among the Deputy Operations Chiefs result in well coordinated joint operations. In this capacity the Operations Section Chief:

- Ensures that the Unified Command objectives are accomplished
- Minimizes duplication of effort among the Deputies
- Looks for opportunities to share limited resources
- Ensures that Unified Commanders receive comprehensive briefings
- Ensures that Operations fully supports the ICS Planning Process
- Ensures that tactical planning is coordinated among the Deputies

Working closely together, the Deputy Operations Section Chiefs develop tactical plans and manage their respective fields of expertise

**Deputy Operations for Maritime Security**: A Coast Guard officer serves as the Deputy Operations for Maritime Security and is responsible for the management of all the maritime law enforcement response activities. Responsibilities include but are not limited to:

- Supporting the development of tactical plans
- Coordinating closely with the FBI and other law enforcement agencies
• Coordinating search and rescue operations as necessary
• Establishing and enforcing safety and security zones

**Deputy Operations for Law Enforcement and Investigation:** An FBI Special Agent will serve as the Deputy Operations Section Chief for Law Enforcement and Investigation. Responsibilities include but are not limited to:

• Managing the deployment and coordination of Federal law enforcement and investigative assets in support of the Incident Action Plan
• Collection and dissemination of intelligence

**Deputy Operations for Response and Recovery:**
The Deputy Operations for Response and Recovery is usually filled by the agency or entity with the legal responsibility for removing the public health and environmental threat. Responsibilities include but are not limited to:

• Support the development of tactical plans that address public health and environmental threats
• Coordinate closely with the FBI and other law enforcement agencies
• Depending on the incident, implement actions outlined in the appropriate consequence management section (oil, hazardous materials, radiological, biological)

### 9366.2 Planning Section

In a terrorist incident response, the FBI will place a special agent in the Planning Section as a Deputy Planning Section Chief. In this capacity the FBI is responsible for:

• remaining up-to-date on the most current incident situation
• acting as a conduit for requests for additional crisis assets, and,
• assisting with the development of the Incident Action Plan

### 9366.3 Coordination between the Incident Command Post (ICP) and the Joint Operations Center (JOC)

The JOC is an FBI-managed interagency command and control center for managing multi-agency law enforcement and investigative responses to credible terrorist threats or an actual incident. The JOC structure calls for liaison representation to and from the Unified Command to ensure that intelligence of relevance and value to consequence managers is passed to the Unified Commanders. The JOC:

• Is the decision making authority for law enforcement activities
• Manages and retains law enforcement sensitive intelligence

The JOC does not manage consequence management activities, but ensures that law enforcement activities are communicated and coordinated with the Unified Command.

### 9366.4 Coast Guard Liaison to the JOC

As a maritime law enforcement agency, the Coast Guard would be a participant in the JOC with Coast Guard Investigative Service (CGIS) agents teamed with FBI agents to collect and monitor intelligence and investigative information to determine what is of particular interest to the Coast Guard. In this capacity the Liaison would:
• Monitor intelligence and investigative activity and determine what is of particular interest to the Coast Guard.
• Ensure that intelligence information relevant to consequence managers is passed to the Unified Commanders.

9367 Special Teams

Some of the special teams that can be requested to provide support to both crisis and consequence management operations include:

• Maritime Safety and Security Team
• District-7 Field Intelligence Support Team
• Coast Guard Atlantic Area Incident Management Assist Team
• Coast Guard Investigative Service
• Civil Support Team (Refer to phonebook for contact number)
• USCG Public Affairs Information Team
• DOE RAP Team
• USCG Strike Teams
• Agency for Toxic Substance Disease Registry

9368 Logistics Section

The unique nature of a terrorist incident requires the collection and sharing of sensitive or classified information. The establishment of the Incident Command Post must take into consideration the following:

• Facilities Unit
  o Include dedicated private space for law enforcement
• Communications Unit
  o Determine need to request communications support from CAMSLANT
  o Determine need to provide Cellular STU-III support to the Coast Guard Incident Commander

9369 Local Maritime Law Enforcement Tactical Resources

Local law enforcement assets that can support incident operations:

• Florida Marine Patrol / Corresponding Georgia unit
• Florida Department of Natural Resources and Environmental Control
• Local Port Authorities
9370 Biological Incident

9371 Introduction

Response to a biological incident in the coastal zone can range from the illegal disposal of medical waste to the intentional release of a disease-causing organism. Initial response actions to a biological incident will depend on the type of incident and the cause or suspected cause of the incident (i.e. terrorist act).

The Coast Guard Incident Commander’s response to biological incidents most likely will involve the use of both the Captain of the Port and Federal On-scene Coordinator (FOSC) authorities. The FOSC role is limited to disease causing agents that exist outside a host for a period of time and which can be physically removed from the environment.

9372 Purpose

The purpose of this section is to provide initial response guidance upon notification of a suspected or actual report of a biological incident in the coastal zone.

If the biological incident is suspected or confirmed to be the result of a terrorist act, response to the incident should be initiated using this section, the Terrorism Incident section, and the Area Maritime Security Plan. A great deal of information on this topic can be found in section 9881 of this plan.

9372.1 Using this Section

The guidance in this section includes initial actions to be taken when responding to:

- Illegally dumped medical waste
- Quarantine (suspected or confirmed infectious disease on a vessel)
- Suspect or confirmed release of a biological agent involving:
  - Tainted, contaminated or otherwise suspect cargoes
  - Passengers and crew of a vessel
  - Buildings in the coastal zone

9373 Illegally Dumped Medical Waste

Determine if competent authorities are taking appropriate action to remove the hazard (State and/or local health agencies are normally the lead agencies)

- If yes,
  - Provide support as capabilities, authorities and safety of Coast Guard personnel allows
- If no,
  - Contact local law enforcement and secure the area
  - Ensure that local health officials are aware of the incident
  - Determine if the medical waste presents an imminent and substantial danger to public health
• Initiate cleanup operations under CERCLA
• Hire a contractor authorized to handle medical waste to remove the hazard. Local cleanup contractors that can respond to a biological incident

9374 Quarantine (Suspected or Confirmed Infectious Disease on a Vessel)

The intent of quarantine is to isolate the vessel involved, prevent those infected from going ashore without proper precautions, and to limit exposure to shoreside personnel.

Upon notification that a vessel may have a possible or actual communicable disease onboard, or is flying the quarantine flag, the following actions should be taken:

- Immediately establish communications with the vessel to determine:
  - Why the vessel is flying the quarantine flag
  - What disease is onboard
- Determine if the vessel has adequate crew to safely navigate the vessel.
- Do not permit any Coast Guard personnel to board the vessel without approved safety precautions.
  - Immediately notify federal, state and local health departments:
    - U.S. Public Health Department
    - Florida Department of Health
    - Jacksonville Department of Public Health
    - Georgia State Health Department
- Gather medical information on affected crewmembers and passengers.
- Obtain a crew list.
- Establish vessel security to control access (on and off the vessel).
- Maintain log of personnel that come on and off the vessel.
- Ensure that Pilot's Association is notified.
- Issue COTP order to:
  - Implement a security plan.
  - Prohibit cargo operations.
  - Prohibit discharge of 'gray' water.
- Notify unit's Public Health Doctor to advise the Command and provide liaison with local health officials.
- Direct agent to get medical assistance for crew.
- As directed by public health incident commander implement port quarantine plan.
- Notify Center for Disease Control, request assistance from Agency for Toxic Substances and Disease Registry (ATSDR).
- Notify Customs and Border Protection.

9375 Suspected or Confirmed Release of a Biological Agent

The actions that the Coast Guard Incident Commander takes in response to a suspected or confirmed release of a biological agent will be driven by many factors:

- Is the incident on a vessel? If yes,
  - Have the crew and/or passengers been impacted?; or,
  - Is it the vessel’s cargo?
• Is the incident at a facility or building in the coastal zone?
• Is the intelligence credible?

9376 For Any Suspected or Confirmed Biological Incidents Involving Vessels

Consult with appropriate agencies to determine details for issuing a Captain of the Port Order directing the vessel to remain offshore or go to a safe anchorage.

- Work with the Jacksonville FIST to determine if threat is credible or non-credible.
  - If credible, support the Department of Health and Human Services which is the Coordinating Agency and the Federal Bureau of Investigation
- Initiate Critical Incident Communications procedures
- Determine if Safe to Respond.
  - Work with the Unified Command to determine the control zones (hot, warm, cold).
  - Ensure Unified Command communicates location of zones to response personnel.
  - Document Safe to Respond determination.
- Support designated public health officials to minimize the health risk of passengers and crew.
  - Isolation of contaminated areas.
  - Gross decontamination for exposed personnel (showers).
  - Minimize spread by securing contaminated articles (bag suspected clothing).
- Ensure all crew, pilot and passengers are accounted for and maintain positive control.
- Determine if a safety zone will be required (waterside and landside).
- Determine any actions required for the safety of the crew and any passengers.
- Contact District-7 (marine safety) for determination if a Statement of No Objection (SNO) is required for law enforcement boarding.
- If necessary, request a Crisis Exemption from the Environmental Protection Agency for the use of any chemical countermeasures that use products regulated by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) of 1996.
- Crisis communications.
  - Medical professionals should communicate with the public.
  - Public health are the primary spokespersons for biological incidents.
- Determine need to obtain CERCLA funding.

9376.1 If Suspected Source for the Biological Agent is Cargo

The Unified Command should consider the following priorities, objectives and determinations when responding to a suspected biological agent that involve a vessel’s cargo.

9377 Unified Command Priorities

- Safety of boarding teams
- Public safety
- Selecting a location to offload suspected cargo/passengers
- Disposal of the cargo
9377.1 Unified Command Objectives

- Conduct security boarding.
  - Boarding team to examine ship’s medical log to determine if any entries were made regarding crew’s possible exposure to a biological agent
- Check for secondary devices (explosives).
- Conduct non-intrusive assessment of suspect cargo testing for:
  - Flammable
  - Radiological
  - Chemical
  - Biological
  - Explosives
- Ensure the preservation of evidence.

9377.2 Unified Command Determinations

- Determine the location where suspected cargo should be offloaded:
  - At anchorage
  - Pier side
- Determine need to establish a Science Team
- Determine where to dispose of the cargo.
  - At sea
  - On land – May require State permit for disposal, a problem may occur when crossing state boundaries
9377.3 Unified Command Organization

The cooperation of many organizations will be required to successfully respond to and mitigate the threat posed by a biological incident. The information in Figure 1 represents agencies that may support a biological response operation and where they may potentially operate in a Unified Command organization. This information should be used in conjunction with the Unified Command organization structure outlined in the Terrorism Incident Annex.
9377.4 Science Team

The Science Team is led by NOAA’s Scientific Support Coordinator and is responsible for:
- Determining appropriate entry procedures for inspecting the interiors of suspected containers if container cargo.
- Developing a sampling plan.
- Developing disposal protocols for unknown biological hazards.
- Developing plan to transport and dispose of contamination.

The Science Team may have representation from a wide variety of agencies and entities including but not limited to:
- Center for Disease Control and Prevention
- U.S. Department of Agriculture
- USCG Strike Team
- Environmental Protection Agency, Region IV
- Request for EPA assistance made through their Regional Response Center 24-hour number
- Food and Drug Administration
- State Health Agencies
- Animal Plant and Health Inspection Service (APHIS)
- State Departments of Environmental Protection

9378 A Building Structure in the Coastal Zone

Local and state health agencies have primary jurisdiction in responding to biological incidents. The Coast Guard Incident Commander will ensure that:

- Competent authorities are responding.
- Notifications are made to the appropriate authorities:
  - Environmental Protection Agency, Region IV
  - Federal Bureau of Investigation
- The incident site is secured.
- A site assessment is conducted:
  - Sampling and analysis plan.
- Once situation is stable the CGIC will begin transferring the role of Federal
- On-scene Coordinator to the appropriate EPA region

9379 Special Teams

The following special teams are equipped to respond to biological incidents, and should be considered as potential response resources:

- EPA Emergency Response Team (ERT)
- USCG Strike Team
- OSHA
- ATSDR
- NOAA
Additional special teams can be found in the Special Teams Handbook.

## 9380 Incident Action Plan (IAP) Template

The form below is the cover for the IAP, which includes several ICS forms. To view all ICS forms, go to [https://homeport.uscg.mil/mycg/portal/ep/browse](https://homeport.uscg.mil/mycg/portal/ep/browse) to download forms.

<table>
<thead>
<tr>
<th>Incident Name</th>
<th>Operational Period to be covered by IAP (Date / Time)</th>
<th>IAP COVER SHEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Approved by:</td>
<td>From: To:</td>
<td></td>
</tr>
<tr>
<td>FOSIC</td>
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<tr>
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</tbody>
</table>

**INCIDENT ACTION PLAN**

The items checked below are included in this Incident Action Plan:

- ICS 202-08 (Response Objectives)
- ICS 204-08 (Organization List) OR ICS 201-08 (Organization Chart)
- ICS 204-09c (Assignment Lists)
  - One Copy each of any ICS 204-09 attachments:
    - Map
    - Weather forecast
    - Tides
    - Shoreline Cleanup Assessment Team Report for location
    - Previous day's progress, problems for location
- ICS 204-05 (Communications List)
- ICS 206-08 (Medical Plan)
- ICS 206-09 (Medical Plan)
- ICS 206-10 (Medical Plan)
- ICS 206-11 (Medical Plan)
- ICS 206-12 (Medical Plan)

4. Prepared by: Date / Time

**IAP COVER SHEET**

June 2000
9400 Area Planning Documentation

This Appendix documents the analysis, risk assessment, and scenario development of the Area Planning Committee; the information in the Appendix defines the conditions this plan was designed to meet and serves as the foundation for the objectives, strategies, resources, training, and policy for response. This appendix is organized as follows:

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9410 Spill / Release History

Refer to Section 1250 of this plan.

9420 Planning Factors and Assumptions

[RESERVED]
9421 Oil Spill Planning Factors and Assumptions

[RESERVED]

9422 Hazardous Materials Planning Factors and Assumptions

This section outlines the planning factors and assumptions relied upon in developing the Hazardous Materials Annex, Annex 7000 to this plan.

9422.1 Focus of Planning Activities

In scenario based planning, your initial development of a response plan would be centered upon addressing the progression of response issues and identifying the capabilities and abilities of government or private sector response entities that can address and remedy those issues.

9422.2 Geography

- Sensitive environmental areas
- Land use
- Water supplies
- Public transportation
- Population density
- Particularly sensitive institutions (e.g., schools, hospitals, homes for the aged, etc.)

9422.3 Sensitive Environmental Areas

Refer to Section 4620.

9422.3 Land Use

Commercial, single-family and multi-family zoning exists throughout the area.

9422.4 Water Supplies

Refer to Section 4610.

9422.5 Public Transportation

Air, land and sea-borne transportation are available throughout the COTP Jacksonville AOR. The AOR is a major crossroads for highway and rail traffic, which creates a high potential for hazardous materials incidents.
9422.6 Population Density

Based on the 2013 US Census Bureau the Duval County has a population of 885,855, and one of the most populous counties in the State of Florida. The estimated population within the AOR is likely over 2,113,560 (this information needs verification).

http://quickfacts.census.gov/qfd/states/12/12031.html

9422.7 Particularly Sensitive Institutions

- For a list of schools, refer to Section
- For a list of hospitals, refer to Section
See Section 9265.1 Emergency Medical/Hospitals of Sector Jacksonville’s ACP
- For a list of nursing homes, refer to Section Nursing Homes

9422.8 Climate/Weather

COTP Jacksonville’s AOR is subject to weather events which could directly or indirectly lead to hazardous chemical incidents including flooding, hurricanes, lightning and tornadoes.

9430 Area Risk Assessment

9431 Area Oil Pollution Risks

[RESERVED]

9432 Area Hazardous Materials Risk

9432.1 St. Marys River / Fernandina

Threats - facilities/installations: In this region, there are several waterfront facilities, located on Amelia Island. These include several paper mills, which handle a variety of chemicals in the processing and manufacture of paper and paper pulp products. Also, the Navy submarine base at Kings Bay, GA, handles a variety of HAZMAT, from chemicals to nuclear materials.

Threats - road/rail/ship transport: Some HAZMAT is brought into the port of Fernandina via ship in small amounts. At the time that this Annex was drafted, no specifics were available on detailed quantities or type, but the amounts are believed to typically be less than 500 gallons at a time. While numerous roads traverse the area, two primary bridges are of concern with respect to the St. Marys River. The first is Interstate I-95, and the second is the CSX railroad bridge. While both bridges cross the St. Marys River in EPA region IV's AOR, the potential exists for spilled HAZMAT to travel downstream and into Sector Jacksonville's AOR. CSX will soon be able to provide detailed information on amount and type of HAZMAT traversing the railroad bridge across the St. Marys River.
However, FL DoT has no information regarding the type or amount of HAZMAT crossing the I-95 Bridge, although it is suspected to be high in quantity and quite variable in type.

Most likely case scenarios discharge - because of the unknowns, a multiple listing of possibilities is included here. This approach should help with regard to planning and exercises; planners should vary the focus to each type of possibility, so that when an incident does occur, the details of different situations have been examined.

1. HAZMAT incident at the Navy Base - Of particular interest is the acid used in batteries for the submarines at the base. The amount would be small, typically less than 500 gallons. In fact, spills have occurred in the past. Fortunately, the base has its own specially trained HAZMAT response team with an Incident Command Structure. Sector Jacksonville as FOSC would typically not be directly involved with responding in this scenario.

2. Truck accident on I-95 Bridge - This incident would involve liquid or gas HAZMAT. The amount would be relatively small, typically limited to the capacity of the truck involved. Less likely would be the involvement of more than one truck, but the quantity would still be limited to the contents of the vehicles involved. The response would be limited to coordination with EPA, and the limiting/prevention of the spread of HAZMAT, downstream and/or into environmentally sensitive areas. River currents and tides, as well as prevailing winds, would have a direct impact upon the time factor in this scenario.

3. Facility spill in Fernandina - This incident would involve liquid or gas HAZMAT. The amount would vary widely, but would not typically be over 1000 gallons. Although the HAZMAT used by the facilities is typically transported via land, the facilities are in very close proximity to the water. The response would vary with the amount, and would depend upon the quantity and type of HAZMAT. Close coordination with the RP, and activation of the ICS/UCS are possibilities in this event. River currents and tides in the area would play a major role. The potential for danger to humans exists also, and should be considered when planning for this particular scenario.

Worst case scenario discharge - due to the limited amount of large quantities of HAZMAT (in excess of 1000 gallons) that are handled in this region, only a couple of scenarios are presented. It is important to research and plan for these incidents when setting up exercises, so that as much reality can be introduced to identify major obstacles that must be handled. Of paramount concern is the containment of the spill and the hazards posed to humans and the environment.

1. Nuclear accident at the Navy Base - Although unlikely, the possibility of a radiological accident exists at the Navy base in conjunction with either the weapons or propulsion systems aboard the submarines there. Amounts of material and the scope of the event are varied. While the Navy is uniquely well-equipped to respond to such incidents, the MSO as FOSC may be required to set up a UCS to respond, depending upon the magnitude of the incident.

2. Train derailment across the St. Marys River - Although somewhat unlikely, the possibility exists for a train derailment across the St. Marys River. As was the case under the most likely case scenario discharge, prevailing tides and winds will play a major factor in how rapidly the HAZMAT spreads downstream and into the AOR of Sector Jacksonville. Containment will be of paramount importance, and close coordination with EPA Region IV officials and their efforts will be vital.

9432.2 St. Johns River / Jacksonville

Threats - facilities/installations: In this region, there are several waterfront facilities located throughout Jacksonville and down into the Green Cove Springs area. These include shipyards and onload/offload terminals, which handle quite a variety of chemicals in the processing and manufacture of all types of products. Additionally, the Navy has two bases: Naval Station Mayport at the mouth of the St. Johns River, and Naval Air Station Jacksonville, south of the downtown area along the St. Johns River. Both military bases handle a variety of HAZMAT.
Threats - road/rail/ship transport: Some HAZMAT is brought into the port of Jacksonville, to Blount Island and Talleyrand terminals, via ship. Data provided by the Port Authority shows fertilizers, sulfuric acid, and sodium hydroxide as the largest quantities, all at or below 35 tons per year (most recent figures for 1994. This data is rough guidance, and may not include all HAZMAT shipped by all users of JPA facilities.) While numerous roads transverse the area, two primary bridges are of concern with respect to the St. Johns River. The first is the Interstate I-95 Fuller-Warren and I-295 Buckman bridges, and the second is the CSX railroad bridge across the St. Johns River in downtown Jacksonville. All three bridges cross the St. Johns River in Sector Jacksonville's AOR. CSX will soon be able to provide detailed information on amount and type of HAZMAT traversing the railroad bridge across the St. Johns River. However, FL DOT has no information regarding the type or amount of chemicals crossing the I-95 and I-295 bridges, although DOT estimates that many such shipments cross the river, and the type of material is quite variable.

Most likely case scenarios discharge - because of the unknowns, a multiple listing of possibilities is included here. This approach should help with regard to planning and exercises; planners should vary their focus to cover each type of possibility, so that when an incident does occur, the details of different situations have been examined.

1. HAZMAT incident at either Navy Base - This type of incident has occurred in the past, although the amounts have been small, typically less than 100 gallons. Fortunately, both bases have their own specially trained HAZMAT response teams with an Incident Command Structures. In these cases, COMNAVBASEJAX is the initial Navy On-Scene Commander (NOSC). Sector Jacksonville as FOSC would typically not be directly involved with responding in this scenario.

2. Truck accident on the I-95 or I-295 Bridge - This incident would involve liquid or gas HAZMAT. The amount would be relatively small, typically limited to the capacity of the truck involved. Less likely would be the involvement of more than one truck, but the quantity would still be limited to the contents of the vehicles involved. The response would be significant, primarily because of the difficulty in locating an RP if the time factor is short and the driver of the truck is injured/unable to provide information about the shipment. After first responders have arrived on-scene, a UCS that involves the LEPC is critical, especially if there is a threat to life or property. River currents and tides, as well as prevailing winds, would have a direct impact upon the time factor in this scenario. Consideration should be given to closing the affected region to vessel traffic.

3. Facility/shipyard spill along the St. Johns River - This incident would involve liquid or gas HAZMAT, or caustic soda, the most common HAZMAT transported on the river. The amount would vary widely, but would not typically be over 1000 gallons. Although the HAZMAT used by the facilities/shipyards is typically transported via land, the facilities are in very close proximity to the water. The response would vary with the amount, and would depend upon the quantity and type of HAZMAT. Close coordination with the RP, and activation of the ICS are possibilities in this event. River currents and tides in the area would play a major role. The potential for danger to humans exists also, and should be considered when planning for this particular incident. Thus, again LEPC's should be involved with the response.

Worst case scenario discharge - due to the limited amount of large quantities of HAZMAT (in excess of 1000 gallons) that are handled in this sub region, only two scenarios are presented.

1. Train derailment across the St. Johns River - Although somewhat unlikely, the possibility exists for a train derailment across the St. Johns River. Due to the length of the bridge, such an incident might involve a large amount of HAZMAT, possibly as much as 10,000 gallons or more. As was the case under the most likely scenario, prevailing tides and winds will play a major factor in how rapidly the HAZMAT spreads downstream and into the AOR of Sector Jacksonville. CSX Intermodal controls all rail movement of HAZMAT across the St. Johns River, and they would be the first contact that should be established. CSX also has an ICS/UCS type structure that is implemented in such cases. Sector Jacksonville as FOSC would be coordinating with CSX to form a joint UCS to handle the incident. Containment will be of paramount importance, and again close coordination with LEPC due to the close proximity to large populations will be vital as well.
2. Vessel collision/grounding in the St. Johns River - This scenario is more likely, but due to the smaller quantity of HAZMAT, it presents a smaller risk. The waterway can be difficult to transit, particularly during restricted visibility. Although no HAZMAT releases have occurred due to vessel groundings/collisions, the quantity per incident could be substantial. As was the case under the most likely scenario, prevailing tides and winds will play a major factor in how rapidly the HAZMAT spreads. Sector Jacksonville as FOSC would be setting up a UCS structure soon after the incident occurred. Containment will be of paramount importance, and again close coordination with LEPC due to the close proximity to large populations will be vital as well. Salvage efforts could require considerable expertise. Use of Special Forces such as the Strike Team should be given early consideration.

9432.3 Atlantic ICW from the St. Johns River to the Indian River Lagoon to Malabar, FL

Threats - facilities/installations: In this region, there are several waterfront installations. These are primarily work areas/shipyards (such as Bollinger Shipyard), and marinas. The quantity of HAZMAT is relatively small in this region along the banks of the ICW.

Threats - road/rail/ship transport: Some HAZMAT is transported along the ICW, albeit in limited quantities by the smaller commercial vessels that transit this waterway. At the time that this Annex was drafted, no specifics were available on detailed quantities or type, but the amounts are believed to typically be varied by type and less than 100 gallons. While numerous roads transverse the area, the bridges that cross the ICW that are available for truck traffic are of primary concern. There are more than 20 such bridges, and all are within the jurisdiction of Sector Jacksonville as FOSC. As discussed in previous sections, FL DOT has no information regarding the type or amount of chemicals crossing these bridges, although it is suspected as quite variable but low in quantity. The bridges are not used as thruways, but rather routes to reach voyage termination points. Since industrial work along the ICW is not significant, the traffic is therefore light.

Most likely case scenario discharge - because of the unknowns, a single listing is included here, which covers a broad category of possibilities.

1. Installation/work yard spill along the ICW - In this scenario, the type and amount of HAZMAT will be varied, but would not be substantial in quantity (most likely less than 100 gallons). Potential threat to human life would depend upon the installation's proximity to a population center such as Daytona or St. Augustine. Due to the extensive tidal marshes and environmentally sensitive areas along the ICW, the threat to wildlife would be relatively high. Close, early coordination with the RP and responders/cleanup crews is vital to ensure minimal environmental damage.

Worst-case scenario discharge - due to the limited amount of large quantities of HAZMAT (in excess of 1000 gallons) that are handled in this region, only one scenario is presented. Of paramount concern is the containment of the spill and the hazards posed to humans and the environment.

1. Truck incident on a bridge crossing the ICW - This incident would involve liquid or gas HAZMAT. The amount would be relatively small, typically limited to the capacity of the truck involved. Less likely would be the involvement of more than one truck, but the quantity would still be limited to the contents of the vehicles involved. The response would be significant, primarily because of the difficulty in locating an RP if the time factor is short and the driver of the truck is injured/unable to provide information about the shipment. After first responders have arrived on-scene, a UCS that involves the LEPC is critical, especially if there is a threat to life or property. Consideration should be given to closing the affected region to vessel traffic.
9432.4 Port Canaveral / Cape Canaveral Area

Threats - facilities/installations: In this region, there are several waterfront installations. The quantity of HAZMAT is relatively small in this region on the banks of the ICW. The major handlers of HAZMAT in the area are the Kennedy Space Center and Cape Canaveral Air Force Station, and Patrick Air Force Base.

Threats - road/rail/ship transport: Some HAZMAT is transported along the ICW, albeit in small quantities by the smaller vessels that transit this waterway. Canaveral port authority figures show no substantial HAZMAT as being specifically imported to or exported from the port. Therefore, transiting, smaller commercial vessels are believed to typically move less than 100 gallons. No bridges cross the port itself.

Most likely case scenarios discharge - because of the small size of the port itself, a single listing of possibilities is included here. This approach should help with regard to planning and exercises; planners should vary focus on each type of possibility, so that when an incident does occur, the details of different situations have been examined.

1. Installation/work yard spill in the port or nearby facility - In this scenario, the type and amount of HAZMAT will be varied, but would not be substantial in quantity (most likely less than 100 gallons). Potential threat to human life would depend upon the type of chemical, since there is a substantial population center nearby. Due to the large concentration of marine life in the area, the threat to the environment would be relatively high. Close, early coordination with the RP and responders/cleanup crews is vital to ensure minimal environmental damage. For the Space Center and Air Force facilities, specialized HAZMAT teams exist to conduct response and cleanup operations.

Worst case scenario discharge - due to the limited amount of HAZMAT in the port, the worst case scenario discharge is seen as identical to the most likely case scenario discharge. A factor to consider is the large volume of cruise ship passengers that transit the area. Any response to a large incident would need to take into account the people that may be on a cruise ship that has just arrived or is preparing to depart.

1. Truck incident on a bridge crossing the ICW - This incident would most likely involve a liquid or gas HAZMAT spill. The amount would be relatively small, typically limited to the capacity of the truck involved. Less likely would be the involvement of more than one truck, but the quantity would still be limited to the contents of the vehicles involved. The response would be significant, primarily because of the difficulty in locating an RP if the time factor is short and the driver of the truck is injured/unable to provide information about the shipment. After first responders have arrived on-scene, a UCS that involves the LEPC is critical, especially if there is a threat to life or property. Consideration should be given to closing the affected region to vessel traffic.

9432.5 Offshore

Threats - ship transport: The knowledge regarding HAZMAT transport specifics offshore is little, but the potential for type and quantity is unlimited. As shown by the TMI-11 barge incident in early 1996, large quantities of HAZMAT do routinely move through Sector Jacksonville's AOR while enroute to other ports.

Most likely case scenario discharge - the most likely incident is one involving a relatively small amount of HAZMAT (less than 500 gallons).

1. HAZMAT barrels lost from vessel during transit in heavy weather - This scenario is not infrequent during severe tropical weather systems and winter nor'easters that have occurred in the past several years. The procedure for dealing with drums is the same, regardless of where they are located. As approved under the July 1995 MOA by the state of Florida and the U.S. Coast Guard, drums found in or near the water which contain Hazardous Material or unknown materials must be handled as HAZMAT until determined to be otherwise. In accordance with an agreement between the U.S. Coast Guard Seventh District and the Florida Department of Environmental Protection the following guidance applies: The retrieval, testing, and disposal of drums containing hazardous materials or
suspected of containing hazardous materials, found floating on the waters within the FOSC zone will be the responsibility of the U.S. Coast Guard. The retrieval, testing, and disposal of drums containing hazardous materials or suspected of containing hazardous materials, found intact on the beach, or on the banks of waters located within the FOSC zone, will be the responsibility of the Florida Department of Environmental Protection. Drums containing hazardous materials or suspected of containing hazardous materials found to be leaking product onto the beach, or on the banks of waters located within the FOSC zone, will be the responsibility of the U.S. Coast Guard.

Worst-case scenario discharge - the worst case scenario involves the release of a large quantity of HAZMAT, with the possible sinking of the vessel involved. Because of the variables of such an incident, the details are quite different for each incident.

1. HAZMAT incident offshore and possible sinking of a vessel - this incident, although not usually representing an immediate danger to human life or the inland marine environment, presents possibly the worst case scenario of all cases in this risk analysis section because of the large quantities involved; up to a million gallons or more. Close coordination with the RP for recovery efforts is essential. As was shown by the TMI-11 barge case in early 1996, every effort to work with the RP for cleanup and recovery must be made. Close coordination and communication are essential. While it is impossible to cover all of the variables of such an event when planning, a "lessons learned" study of case histories is extremely valuable in determining potential obstacles beforehand.

### 9433 Marine Fire Risks

The following facilities may present fire risks. Address, Location, and Points of Contact may vary.

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<thead>
<tr>
<th>Facility</th>
<th>Hazard Type</th>
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<td>Amelia Island Yacht Basin</td>
<td>Recreational vessel marina/fuel dock</td>
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<tr>
<td>251 Creekside Dr.</td>
<td></td>
</tr>
<tr>
<td>Amelia Island, Fl 32034</td>
<td></td>
</tr>
<tr>
<td>904-277-4615</td>
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</tr>
<tr>
<td><a href="http://ameliaislandyachtbasin.com/">http://ameliaislandyachtbasin.com/</a></td>
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<tr>
<td>Egan’s Creek Marina</td>
<td>Recreational vessel marina</td>
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<tr>
<td>N. 14th St.</td>
<td></td>
</tr>
<tr>
<td>Fernandina Beach, Fl 32034</td>
<td></td>
</tr>
<tr>
<td>Fernandina Beach Marina</td>
<td>Recreational vessel marina/fuel dock</td>
</tr>
<tr>
<td>1 Front St.</td>
<td></td>
</tr>
<tr>
<td>Fernandina Beach, Fl 32034</td>
<td></td>
</tr>
<tr>
<td>Tiger Point Marina &amp; Boat Works</td>
<td>Recreational vessel marina/Hazmat</td>
</tr>
<tr>
<td>112 N. 6th St.</td>
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**CLASSIFICATION:** UNCLASSIFIED  **CONTROLLING AUTHORITY:** AREA COMMITTEE  **ISSUING AUTHORITY:** T.G. ALLAN, JR.  **PAGE:** 9400-9

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NAS Jacksonville
Building 1072 Ranger Rd.
Jacksonville, FL 32073

Jackie’s Restaurant
8132 Trout River Dr.
Jacksonville, FL 32208
Recreational vessel marina/fuel dock

Julington Creek Marina
12807 San Jose Blvd.
Jacksonville, FL 32223
Recreational vessel marina/fuel dock

Julington Creek Pier 3
12752 San Jose Blvd.
Jacksonville, FL 32223
Recreational vessel marina

Lambs Yacht Center
3376 Lakeshore Blvd.
Jacksonville, FL 32210
Recreational vessel marina/fuel dock

Lighthouse Marine
5434 San Juan Ave
Jacksonville, FL 32210
Recreational vessel marina/fuel dock

Mandarin Holiday Marina
12796 San Jose Blvd.
Jacksonville, FL 32223
Recreational vessel marina/fuel dock

Mariner Point Yacht Club
5105 Mariner Point Rd.
Jacksonville, FL 32225
Recreational vessel marina

River City Marine
8940 San Jose Blvd.
Jacksonville, FL 32217
Recreational vessel marina/fuel dock

Metropolitan Park Marina
1410 East Adams St.
Jacksonville, FL 32202
Recreational vessel marina/fuel dock

Montys Marina
4378 Ocean St.
Mayport, FL 32233
Recreational vessel marina/fuel dock

The Moorings
14750 Beach Blvd.
Jacksonville, FL 32250
Recreational vessel marina

Ortega River Boat Yard
4451 Hershel St.
Jacksonville, FL 32210
Recreational vessel marina/fuel dock

Ortega River Yacht Club
Recreational vessel marina/fuel dock
4585 Lakeside Dr.
Jacksonville, Fl 32210

Palm Cove Marina
14603 Beach Blvd.
Jacksonville, Fl 32225

Queens Harbor Club
13361 Atlantic Blvd.
Jacksonville, Fl 32250

River City Marine
8940 San Jose Blvd.
Jacksonville, Fl 32217

River City Marina
835 Museum Circle
Jacksonville, Fl 32207

Rudder Club Of Jacksonville
8533 Malaga Ave.
Orange Park, Fl 32073

Sadler Point Marina
4669 Roosevelt Blvd.
Jacksonville, Fl 32210

Sandollar Restaurant
9716 Heckscher Dr.
Jacksonville, Fl 32226

Seafarers Marina
455 Trout River Drive
Jacksonville, Fl 32208

Travis Boating Center
8137 N. Main St.
Jacksonville, Fl 32208

Weeks Marine
2652 Blanding Blvd.
Jacksonville, Fl 32210

Whitneys Marine
3027 Highway 17
Orange Park, Fl 32073

Mid Florida Freezer
9012 N. Atlantic Ave.
Port Canaveral, FL
LAT/ LONG: 28-24-44N / 80-36-33W

Tanker Berth #2

Recreational vessel marina/fuel dock
Recreational vessel marina
Recreational vessel marina/fuel dock
Recreational vessel marina
Recreational vessel marina
Recreational vessel marina
Recreational vessel marina/fuel dock
Recreational vessel marina
Recreational vessel marina/fuel dock
Recreational vessel marina/fuel dock
Recreational vessel marina
Haz-Mat /Freezer Storage
Fuel transfer for Coastal Fuels Depot
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Florida Petroleum Corporation
231 N. Front St.
Fernandina, FL 32034

FPL Putnam
392 U.S. HWY 17 South
East Palatka, FL 32131

Georgia Pacific Corp.
919 Country Road 216
Palatka, FL 32178

JE A- Kennedy
21 W. Church St.
Jacksonville, FL 32202

Petroleum Fuel Terminal Company (Truman Fuels)
1961 E. Adams St.
Jacksonville, FL 32202

St. Services
6531 Evergreen Ave.
Jacksonville, FL 32208

St. Johns River Coal Terminal
11201 New Berlin Road
Jacksonville, FL 32226

Cruise Terminals

Cruise Terminal #2
Vessel: Sterling Casino Lines
180 Christopher Columbus Dr.
LAT/ LONG 28-24-43 N/ 80-36-22 W

Cruise terminal #3
Vessel: none
220 Christopher Columbus Dr.
LAT/ LONG 28-24-43 N/ 80-35-94 W

Cruise Terminal #4
Vessel: none
240 Christopher Columbus Dr.
LAT/ LONG 28-24-43 N/ 80-35-80 W

Cruise Terminal 5
Vessel: Carnival Fantasy, NCL Norwegian Dawn,
Holland America Zaandam
1492 Charles M. Rowland Dr.
LAT/ LONG 28-24-99 N/ 80-37-60 W

Cruise Terminal #8
Vessel; Disney Magic and Wonder
9150 Charles M. Rowland Dr.
LAT/LONG 28-24-74N/80-37-85W

Cruise Terminal # 9 & 10
Vessel: Carnival Glory, Royal Caribbean Mariner of the Seas,
Royal Caribbean Sovereign of the Seas
900 Charles M. Rowland Dr
LAT/LONG 28-24-63N/80-37-66W

Austin Cruise Terminal # 10
9810 August Drive
Jacksonville, FL 32226

9434 Vessel Salvage Risks
[RESERVED]

9435 Weapons of Mass Destruction Risks
[RESERVED]

9440 Planning Scenarios

9441 Oil Spill Scenarios

In this appendix three oil spill scenarios will be addressed. These are; Most Probable Discharge, Maximum Most Probable Discharge and Worst Case Discharge.

Certain assumptions are made for each scenario, these include:
1. The responsible party is not taking action for cleanup.
2. Weather conditions are; winds from the NE at 30 knots, sky is overcast with 90% cloud cover during the day, tides are higher than normal due to the continuous NE winds. The weather conditions persist for the first two days after the spill.
3. The total amount of oil recoverable is only 40% of the total amount of oil spilled.

9441.1 Average Most Probable Discharge

The average most probable discharge of oil in the Sector Jacksonville area of responsibility is a mystery sheen resulting from a diesel fuel spill of 10-20 gallons. These spills probably originate from fishing vessels based on their location. They may be fuel directly entering the water or fuel entering the bilges and then being pumped overboard. By the time these spills are reported, the sheen is generally too thin to be sampled. Clean up of these spills is almost never possible.
The average most probable discharge of oil in the Sector Jacksonville area of responsibility for which a cleanup occurs is a diesel fuel spill of 10-100 gallons at the Mayport Naval Station. Due to the immediate availability of response equipment and trained personnel, a substantial amount of this material is recovered. When this size spill occurs from a commercial or recreational vessel the response often requires the MSO to initiate cleanup.

**Average Most Probable Discharge Scenario:** At 0500 a fishing vessel discharges its bilges prior to getting underway at the Mayport area. At 0545 a report is received of approximately 10 gallons of black oil trapped around the Mayport ferry landing. Upon notification the Sector Duty Officer sends out the duty pollution investigators. The local Florida Marine Police office is notified and requested to conduct a water side search for the source. Pollution investigators determine no action is being conducted to contain or clean the oil spill. The OOD requests permission from the Captain of the Port to hire a cleanup contractor once it is determined that a recoverable quantity of the oil exists.

The cleanup contractor's crew arrives with boom and sorbent material. The boom is deployed in a few minutes to contain the oil slick. Then sorbent pads are used to absorb the contained oil. The pads are collected into plastic trash bags and double bagged for disposal when they become oil soaked. All oiled boats, docks, and equipment is thoroughly decontaminated. Pollution investigators determine when it becomes infeasible to recover more oil from the environment. A slight sheen will remain.

### 9441.2 Maximum Most Probable Discharge

**Maximum Most Probable Discharge Scenario:** At 0100 on a Sunday morning an inbound, car carrier bound for Blount Island starts to enter the St. Johns River at the Mayport jetty. Just as the vessel starts to enter the jetty a steering casualty occurs setting the vessel aground on the north jetty at the entrance of the channel (see chart on page 5). The tide is one hour from reaching maximum flood and the winds are from the NE at 30 knots with gust up to 45 knots. As the vessel grounds two of its fuel tanks containing heavy oil are ruptured, releasing heavy fuel oil into the St. Johns River/Atlantic Ocean. The pilot contacts Coast Guard Sector Jacksonville (Sector JAX) immediately after the grounding.

The Sector JAX duty officer is notified of the event at 0115. The initial information passed by the pilot is that a car carrier ship has grounded on the jetty and that oil is in the water. The duty officer has completed notification of the Commanding Officer and Executive Officer, recalled the duty section, instructed the tertiary watchstander to call in all available Sector personnel and informed the Florida Marine Patrol by 0125.

It will take Sector JAX personnel about one and a half hours to get a small boat on scene to evaluate the situation. FMP may not have a boat or personnel immediately available to respond. The Sector duty officer should consider the following initial actions:

1. Request that Sector Jacksonville dispatch a small boat to provide timely evaluation of the situation.

2. Inform the Seventh Coast Guard District M duty officer and operations center of the casualty. Secure a Federal Project Number from the duty M officer. Request an overflight be arranged via the Seventh Coast Guard District operations center. Request Coast Guard ships assist the local fire department to battle the vessel fire if necessary.

3. Contact a BOA oil spill contractor and alert them of the need for response.

4. Contact the pilots station to determine the name of the ship and the ship's agent.

5. Contact ships agent.
The grounding resulted in the release of 2,000 barrels of heavy oil from the ship's fuel tanks. The initial report received at 0155 from the Sector Jacksonville small boat, is that the vessel is being held against the jetty by the winds and that large quantities of oil are in the St. Johns River. Reports to Sector JAX from the vessel state damage survey is being conducted by crew but is not complete. Two tugs are on the way to assist the vessel.

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

1. Where should the COTP order the ship taken when it is removed from the jetty.
2. Where to deploy the initial barrier booms to reduce the spreading of the oil.
3. Where to set up the command post for the response. Ensure State and vessel representative are notified of the location.
4. How many additional oil spill cleanup contractors will be needed to handle the cleanup.
5. Will additional resources be necessary, Strike Team, cleanup monitors, boat crews, etc.

By 0200, pollution investigators report that oil is washing up on the beach south of the jetty. They are unable to determine the quantity of oil in the water due to the darkness.

At 0300 the two assist tugs are on scene, the ship reports two fuel tanks have been holed, no further damage discovered. COTP orders the vessel moved to anchorage three miles offshore and south of the jetty.

At 0500 the vessel is anchored. During the transit another 500 barrels of heavy fuel oil has escaped and the tanks are no longer loosing oil. The vessel is stable and in no fear of sinking. Pollution investigators report oil washing ashore along the beach for a distance of 3 miles south of the jetty. The oil in the St. Johns River is going out with the tide after having left heavy deposits of oil as far inland as the Mayport ferry landing and approximately 50,000 gallons of oil in the Mayport Naval basin.

RESPONSE STRATEGY AND EQUIPMENT: The initial response strategy is to ensure all sources of oil have been identified and action taken to secure the flow into the water. The oil entering the naval station basin is to be kept in the basin as much as possible to facilitate cleanup. The oil in the river should be diverted toward the natural collection points and collected as quickly as possible. The oil heading towards the beach along the Atlantic Ocean cannot be stopped. The Northeast winds will drive this oil south along the beach for approximately five miles. Activation of heavy equipment to move the oiled sand farther up the beach will be necessary. Beach cleanup efforts will have to be coordinated with natural resource trustees to minimize the cleanup impact on the environment. The estimated amount of equipment necessary to contain the spill and to collect the oil is as follows:

1. Boom (18") to keep the oil confined to the Mayport Basin and to divert to cleanup points along the St. Johns River = 10,000 feet.
2. Boom (24") to boom off vessel until repairs can be made = 4,000 feet.
3. Enough skimmers to collect approximately 50,000 gallons of oil trapped in Mayport Basin in two days = 5 skimmers.
4. Inland barges to store/transport the recovered product = 1.
5. Coast Guard small boats to enforce COTP order to close down St. Johns River and Intracoastal Waterway during event = 2.

PERSONNEL: Coast Guard Personnel needed to conduct this exercise over a ten day period would include at a minimum:

1. 08 = Pollution investigators/cleanup monitors
2. 08 = OSC representative qualified personnel
3. 04 = Coxswains
4. 04 = Qualified small boat crew
5. 06 = Personnel to man command post
6. 08 = Personnel to man incident command system staff
7. 06 = Support Personnel
40 = Total personnel needed

RESPONSE: Primary response to the event would be by all personnel at Sector JAX. This would be enough to provide two boat crews, two land based pollution investigation teams, two casualty investigators and personnel to man the communications center and start contacting additional resources needed to assist. Initial assessment of the casualty and enforcement of the COTP order to close the St. Johns River would have to come from Sector Jacksonville. Additional personnel qualified to conduct pollution investigations and monitor cleanup operations would have to be accessed through Seventh Coast Guard District DRAT. Support in the way of Coast Guard resources to conduct overflights would have to be provided by Seventh Coast Guard District operations.

Response time for Sector JAX to be fully manned and operational with personnel on scene may take as long as 1.5 to 2 hours during a night event. Initial response to have the Sector Command Center manned and personnel enroute to the scene would take up to 45 minutes. Support personnel from the Gulf Strike Team historically take 2-3 hours to arrive without equipment. Reservists are locally available but funding to provide them for significant events in the past has not been forthcoming. Expect as many as 20 to volunteer their services part time at no cost until event is under control. TAD personnel from other Seventh Coast Guard District units could be available within 24 hours.

Contractor furnished equipment could take up to 4 hours to stage at Jetty Park. Additional resources outside the Jacksonville area would take a minimum of four hours to arrive after they were called.

Cleanup: The equipment listed is the minimum necessary to conduct an initial cleanup of product working 24 hours a day for 10 days. This represents approximately 50% of the amount spilled. The rest of the product will have been lost due to evaporation (very little), dispersed into the water column or lost into the wetlands and sand of the beach. The oil that enters the wetlands area presents the biggest problem for cleanup. Whether the wetlands should be entered to conduct cleaning operations or if/when to employ water washing or whether to just boom the area with sorbent boom and let the tidal action wash the oil out, this decision will have to be made by the damage assessment team. Also the type of equipment used to clean the beach will have to be determined early on. This part of the cleanup could take weeks. A determination will have to be made as to when the cleanup is complete. The COTP will be guided by the SSC in making his decision on when to secure from the federal funded response.

9441.3 Worst Case Discharge

Description of Vessel Traffic: The predominant vessel traffic calling at Jacksonville is container and trailer ships and barges carrying packaged and break-bulk containerized shipments of dry general cargoes; and, auto carriers carrying various vehicles and rolling stock. Only a relatively small portion of total traffic carries oil or chemical cargoes in bulk. Oil is shipped into Jacksonville on U.S. and foreign flag tankships of up to 40,000 DWT, carrying up to 300,000 barrels of various grades of oil and gasoline, and in tank barges up to 400 ft. in length carrying up to 225,000 barrels of various grades of oil and gasoline. Such cargoes are received at the eight (8) large oil transfer terminals, stored in large contiguous tank farms, and then distributed by barge, truck or rail to a variety of consumers and distribution centers.

Traffic Control/Navigation: There are no traffic control systems or traffic separation schemes anywhere in the Captain of the Port Jacksonville zone. Tug escorts are not mandatory in any COTP Jacksonville ports, except for dead ship movements and vessels carrying explosives or other cargoes of particular hazard. Underway, docking and undocking pilotage is provided in all COTP Jacksonville ports. Assist tugs are available and used in Jacksonville, Port Canaveral and Fernandina. Four areas in the St. Johns River at Jacksonville are considered to be particularly
troublesome to navigation. Details are found in U.S. Coast Pilot No. 4. The areas are:

1. Junction of the Intracoastal Waterway at Sister's Creek.
2. Dames Point turns, just west of Blount Island.
3. Trout River cut approaching downtown Jacksonville.
4. Commodore's Point – 90 degree turn at Mathews Bridge.

**Historical Data:** Most actual and potential major pollution incidents in the COTP Jacksonville Zone have resulted from hard groundings, dock allisions, and ship to ship or ship to barge collisions. Most significant spills have occurred during bunkering activities at the shoreside bunkering terminals and at the JPA facilities at Blount Island, and Talleyrand Docks and Terminals where most bunkering takes place. Very few major spills have occurred in Jacksonville.

**Movement/Spread Of Oil:** The St. Johns River is a tidal estuary that flows north through downtown Jacksonville and thence to its outlet at Mayport, Florida. Tidal currents vary from 1.5 Kts. to 3.5 Kts. with two cycles every 24 hours. River current will rapidly spread an oil slick over a 10-15 mile area in one 24 hour day. The oil slick would naturally advance to seaward between 4 to 8 miles per day.

**Worst Case Discharge Scenario:** At 0100 on a Sunday morning an inbound, single hull, steam powered tankship, carrying 300,000 barrels of No. 6 fuel oil destined for an oil transfer facility on the St. Johns River, approaches the intersection of the Intracoastal Waterway at Sisters creek. A tank barge being pushed by a tug is transiting down river toward the Intracoastal Waterway where it will turn north to deliver 20,000 barrels of No. 2 diesel fuel to a vessel moored at Fernandina. The tide is one hour from reaching maximum flood and the winds are from the NE at 30 knots with gusts up to 45 knots. As the tug and barge approach the junction at Sisters Creek the tug slows to allow the tankship to pass. A strong gust of wind catches the tug and barge and sets it into the passing tankship, hitting the ship on the port quarter and ripping open two cargo tanks and the engine room at the waterline. The tankship loses all electrical power, propulsion control and steering due to the water flooding the engine room and shorting out the electrical switchboards. The barge is wedged into the side of the ship, and the oil from the two forward tanks has been released into the river. The force of the collision creates enough heat to ignite the diesel fuel and heavy oil mixture and the port side of the ship and the barge are engulfed in flame. The wind pushes the ship and barge across the channel grounding on the south bank of the channel at the west entrance of Chicopit Bay (see chart on page I-I-6). The pilot is able to contact Coast Guard Sector Jacksonville prior to the ship’s crew abandoning the vessel via the starboard lifeboat.

The Sector duty officer is notified of the event at 0115. The initial information passed by the pilot is that a collision has occurred between two vessels on the St. Johns river near Sisters Creek. One of the vessels is on fire and the crew is abandoning ship. By 0125, The duty officer has completed notification of the Commanding Officer and Executive Officer, recalled the duty section, instructed the tertiary watchstander to call in all available Sector personnel and informed the Florida Marine Patrol.

It will take the Sector personnel about one hour to get the small boat on scene to evaluate the situation. FMP may not have a boat or personnel immediately available to respond. The duty officer should consider the following initial actions.

1. Request that Sector Jacksonville dispatch a small boat to provide timely evaluation of the situation.
2. Inform the local fire department of a report that a ship is on fire in the St. Johns River near Sisters Creek.
3. Inform the Seventh Coast Guard District M duty officer and operations center of the casualty. Secure a Federal Project Number from the duty M officer. Request an overflight be arranged. Request Coast
Guard ships assist the local fire department to battle the vessel fire if necessary.

4. Contact a BOA oil spill contractor and alert them of the possible need for response.

5. Contact the pilots station to determine the name of the ship and the ship's agent.

6. Contact ships agent.

The collision resulted in the sudden release of 50,000 barrels of heavy oil from the tankship and 5,000 barrels of diesel fuel from the tank barge. The initial report received at 0155 from the Sector Jacksonville small boat, is that the port side of the tankship is completely engulfed in flame and the oil on the river is burning as well as the northwest end of Great Marsh Island.

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

1. Should the COTP call in additional resources such as the Gulf Strike Team?

2. Where to deploy the initial barrier booms to reduce the spreading of the oil.

3. Where to set up the command post for the response. Ensure State and vessel representatives are notified of the location.

4. How many additional oil spill cleanup contractors will be needed to handle the cleanup?

By 0700, the intense fire has caused the port side cargo tank bulkheads to fail and the ship has lost 150,000 barrels of No. 6 oil. The barge has disengaged itself and has sunk releasing all 20,000 barrels of diesel fuel into the river. The ship continues to burn and the firefighting effort continues. The winds have continued to push the escaping oil to the southwest filling the west end of Chicopit Bay and the associated marshes.

By 1200 the rest of the tankship's cargo had effectively been lost due to the collapse of the interior bulkheads. The fire had been extinguished and the wind had subsided to 20 knots and changed direction, coming from the southwest. This caused the oil to spread to the north shore of the St. Johns River and flow up the Intracoastal Waterway on the tide and into the many creeks and wetlands. The oil was also carried down the Intracoastal Waterway, throughout Chicopit Bay and into Pablo Creek.

**Response Strategy and Equipment**: The initial response strategy was to keep as much of the oil in Chicopit Bay as possible. To use the bay as a collection basin and to limit the spread of oil out into the St. Johns River and down the Intracoastal Waterway as much as possible. Any additional available boom would be used to protect the face of the marshes away from the initial impact. The estimated amount of equipment necessary to contain the spill and to collect the oil is as follows:

1. Boom (18") to protect Colorinda Creek, Mt. Pleasant Creek, Pablo Creek Hannah Mills Creek and the Intracoastal Waterway south of Chicopit Bay = 15,000 feet.

2. Boom (24") to boom off vessel, west end, east end and Intracoastal Waterway north of Chicopit Bay as well as the Intracoastal Waterway running north of St. Johns River and to divert the oil in the river to collection points = 20,000 feet.

3. Enough skimmers to collect approximately 120,000 barrels of oil trapped in Chicopit Bay in ten days based on each skimmer having the capacity of remove 300 barrels of product per day = 180 skimmers.

4. Inland barges to store/transport the recovered product = 6.
Personnel: Coast Guard Personnel needed to conduct this exercise over a ten day period would include at a minimum:

1. 30 = Pollution investigators/cleanup monitors
2. 30 = OSC representative qualified personnel
3. 12 = Coxswains
4. 12 = Qualified small boat crew
5. 20 = Personnel to man command post
6. 40 = Personnel to man incident command system staff
7. 20 = Support Personnel
164 = Total personnel needed

Response: Primary response to the event would be by all personnel at Sector Jacksonville. This would be enough to provide two boat crews, two land based pollution investigation teams, two casualty investigators and personnel to man the communications center and start contacting additional resources needed to assist. Initial assessment of the casualty and enforcement of the COTP order to close the St. Johns River would have to come from Sector Jacksonville. Personnel qualified to conduct pollution investigations and monitor cleanup operations would have to be accessed through Seventh Coast Guard District DRAT. Support in the way of Coast Guard resources to combat the vessel fires and conduct overflights would have to be provided by Seventh Coast Guard District operations.

Response time for the Sector to be fully manned and operational with personnel on scene may take as long as 1.5 to 2 hours during a night event. Initial response to have the communication center manned and personnel enroute to the scene would take up to 45 minutes. Support personnel from the Gulf Strike Team historically take 4-6 hours to arrive without equipment. Reservists are locally available but funding to provide them for significant events in the past has not been forthcoming. Expect as many as 20 to volunteer their services part time at no cost. TAD personnel from other Seventh Coast Guard District units could be available within 24 hours.

Contractor furnished equipment could take up to two hours to stage at Sisters Creek. Additional resources outside the Jacksonville area would take a minimum of four hours to arrive after they were called. Large quantities of boom and the number of trained personnel and equipment needed to deploy the boom may take up to 24 hours to arrive on scene. Personnel from the NPFC would probably be available within 24 hours.

Cleanup: The equipment listed is the minimum necessary to recover approximately 120,000 barrels of product working 24 hours a day for 10 days. This represents approximately 40% of the amount spilled. The rest of the product will have been lost due to evaporation (very little), dispersed into the water column or lost into the wetlands. The oil that enters the wetlands area presents the biggest problem for cleanup. Whether the wetlands should be entered to conduct cleaning operations or if/when to employ water washing or whether to just boom the area with sorbent boom and let the tidal action wash the oil out is a decision that will have to be made by the damage assessment team. This part of the cleanup will take many weeks, even months and will require hundreds of thousands of feet of sorbent boom and materials. A determination will have to be made as to when the cleanup is considered complete. The COTP will solicit guidance from the SSC and the state before making his decision on when to secure from the federal funded response. Disposal sites for the waste generated by the cleanup activities are listed in the Disposal and Storage document.

9441.4 Worst Case Discharge (Offshore Platform)

The Worst Case Discharge scenario (Offshore Platform) includes lessons learned from the Deepwater Horizon Incident that occurred in the Gulf of Mexico. It assumes a worst-case discharge of 75,000 barrels per day lasting at least 30 days. The scenario involves a blow out of a deep water offshore exploratory drilling rig in the vicinity of
the Gulf Stream in the Southern Straits of Florida that has the potential to affect Sector Jacksonville’s Captain of the Port (COTP) zone.

Scenario
At 0400 on a Sunday morning, the deep water drilling vessel, Deepwater Poseidon, an ultra-deepwater dynamically positioned, semi-submersible offshore oil drilling rig, exploded in the Florida Straits for unknown reasons in adverse weather conditions. The offshore rig is fully engulfed in flames and is dead in the water. The fire has spread to an area around the rig on the waters’ surface. The crew is abandoning the rig. The free flowing crude oil is burning at the surface in 4 to 6 foot seas. The vessel Master was only able to issue a “mayday” via Channel 16 immediately after the explosion.

The Sector Jacksonville Command Duty Officer and Prevention Duty Officer are notified of the event at 0500 that an offshore drilling rig suddenly exploded 50 NM south of Key West, FL and positioned in the Florida Gulf Stream current which adjoins the southeast United States from Key West, FL to Cape Hatteras, NC. The rig is fully engulfed and free flowing crude oil is discharging into the Florida Straits. None of the crew members are severely injured.

Assumptions
In this situation, 75,000 bbls of crude oil will be the projected quantity per day at the drill site. Duration will be 30 days causing the east coast of Florida to be affected. Weathering and maximum impact varies for Sector Jacksonville. Calculations are based upon the following: 75,000 bbls/day x 30 days x 0.50 (weathering due to increased distance from wellhead) x .25 (maximum share) = 281,250 bbls WCD.

Response Actions
Initial response by Sector Jacksonville personnel to crude oil on the beach and other environmentally sensitive areas (ESAs) may include the following although not in any particular order:

1. Implement the Incident Command System.
2. Contact the Responsible Party and coordinate an appropriate response.
3. Make proper notifications (open fund if need be).
4. Discuss funding options.
5. Request a fixed wing aircraft for overflight(s) from Seventh Coast Guard District Command Center.
6. Officially send Request for Forces (RFF) to D7.
7. Ensure Northeast and Eastern Central Florida Area Contingency Plan (ACP) is used at the Incident Command Post (ICP).
8. Request NOAA Scientific Support Coordinator (SSC) to provide a trajectory model to identify impact to Florida coastline.
9. Request Florida Fish and Wildlife Conservation Commission (FWC) to support the affected wildlife (i.e. turtles, manatees).

The following decisions should be considered:

1. Additional resources that are needed (MSRC, NRC, Gulf Strike Team, etc.).
2. Obtain an oil spill trajectory from NOAA to determine when and where the spill is expected to hit the shoreline; determine where to deploy the initial barrier booms to reduce the spreading of the oil.
3. Identify location to set up the ICP for the response in accordance with the ACP; ensure state and vessel representatives are notified of the location.
4. Ensure Responsible Party provided sufficient number of oil spill cleanup contractors required to maintain the cleanup.
5. FOSC to consider the use of dispersants and in-situ burning.
6. Identify sensitive areas that are at risk. The greatest risk is the potential for damage to the sea-grass ecosystems, mangroves, and coastal vegetation found in the area. Secondary importance is the loss of
public use (and subsequent revenue) of the numerous beaches and parks. The ESAs are mapped out in detail in the Geographic Response Plan (GRP) maps contained in the ACP.

**Response Strategies, Equipment and Personnel**

A spill of this magnitude located in the environmentally sensitive areas will involve government agencies at all levels and create intense public interest. This incident potentially meets the criteria as a Spill of National Significance (SONS); the OSC should request that designation and activation of the SONS organizational structure. Initially, the Incident Command System/Unified Command will be established however, as the response progresses, the SONS organizational structure will likely be implemented. The most critical administrative task is getting the representatives from the many government agencies on line so there is a minimum delay in implementing the initial response strategy. With the large number of involved agencies, each with their own responsibilities, without proper coordination every issue has the potential to become a point of conflict. The most critical operational task is the rapid procurement of fire boom or dispersant equipment if in-situ burning or dispersants is to be effectively employed.

The primary response to the event would be the initial use of all Sector Jacksonville personnel. This would be enough to provide one cutter and two small boats plus boat crews, two land-based pollution investigation teams, two casualty investigators and personnel to man the Operations Center and start contacting additional resources needed to assist. Personnel qualified to conduct pollution investigations and monitor cleanup operations would have to be accessed through Seventh Coast Guard District DRAT. Support in the way of Coast Guard resources to conduct overflights would have to be provided by Seventh Coast Guard District Command Center. The response time for the Sector to be fully manned and operational at the Incident Command Post could take as long as 2 hours. Support personnel from the Gulf Strike Team historically take 4 to 6 hours to arrive without equipment. Reservists are locally available but funding to provide them for significant events in the past has not been forthcoming. TAD personnel from other Seventh Coast Guard District units could be available within 24 hours.

The initial response strategy is to conduct skimming operations offshore and capture as much of the oil offshore as possible (weather permits). Conducting offshore skimming as a collection strategy will limit the spread of oil into the St. Johns River, Intracoastal Waterway, Matanzas, St. Augustine, Port Canaveral, Ponce De Leon, and Sebastian inlets as much as possible. Any additional available boom would be used to protect the face of the marshes and other ESAs away from the initial impact.

The response strategies used will be drawn from the NOAA SSC’s recommendations and shoreline response strategies listed in NOAA's Shoreline Countermeasures Manual for Tropical Coastal Environments. Response strategies by location of the spill are described below:

1. **Offshore:** The offshore response strategy is to remove as much oil as possible by using in-situ burning, dispersants and open water skimming. Containment, Countermeasures and Cleanup Skimming vessels would be deployed, including: Gulf Strike Team VOSS (Vessel of Opportunity Skimming System) and Open Water Oil Containment and Recovery System (OWOCR), Clean Gulf Associates twelve OSRVs (Oil Spill Response Vessels) and FRUs (Fast Response Units) and the CGA 200 HOSS (High Volume Open Seas Skimmer) barge, the U.S. Navy’s SUPSALV for their skimmers and offshore oil boom. The three OWCORS form the National Strike Force (NSF) located in Mobile, AL, could also provide support. Tank barges would also be required to pump recovered oil into if offshore recovery were attempted. Storage capacity in tank barges would be necessary for storage, separation and transportation of recovered oil.

2. **Nearshore:** Very little nearshore boom will be deployed initially. The limited amount of boom available will either be used offshore or in the inlets and marshes if necessary. As the response progresses, sensitive shorelines will be protected as resources become available.

3. **Shoreline:** The majority of all boom deployed will be in an effort to prevent the oil from reaching the beaches. The boom used must be suitable for very shallow water preferably Synthetic sorbents (i.e., pads,
sweeps, and booms). This operation will be very labor intensive and will require constant monitoring of the placements. Vehicles would also be required. The number and type of vehicles would depend largely on the areas and severity of shoreline impact. 4x4 Trucks would be needed to mobilize the required small boats and personnel transport vehicles such as buses or vans would be necessary to mobilize response and clean up personnel.

**Sorbent Use/Reuse:** Synthetic sorbents (i.e., pads, sweeps, and booms) have become standard response materials in the “mechanical recovery” of spilled oil. Their oleophilic, hydrophobic character makes them efficient at separating oil and water and they are routinely used to recover oil from solid surfaces as well (e.g., rubble, cobble and boulder shorelines; equipment/gear; vessels; etc.). Since oiled sorbent material often constitutes a substantial percentage of the oily solid waste generated during spill response and cleanup, opportunities for minimizing this waste volume should be considered.

Some sorbents are designed to be reusable (i.e., mechanized rope-mop skimmers) or can be recycled onsite with inexpensive gear (e.g., appropriate barrel-mounted wringers). Sorbent manufacturer’s instructions should be followed regarding the limits of effective reuse for their individual products. It is also possible to replace sorbent sweeps and booms with recyclable boom and other appropriate gear in circumstances where floating oil can be efficiently recovered without generating oiled sorbents. For example, in good-access, low energy shoreline areas (harbors, bays, inlets), it may be possible to use containment-boom and recover the trapped oil with vacuum trucks instead of contaminating large volumes of sorbent.

**Equipment:** The estimated amount of equipment necessary to contain the spill and to collect the oil is as follows:

1. 200K feet of Boom to protect creeks, inlets and other waterways.
2. Enough skimmers to collect oil trapped in creeks, inlets and other waterways.
3. Inland barges to store/transport the recovered product (10).
4. Coast Guard small boats to enforce COTP order to close down St. Johns River and Intracoastal Waterway during incident (6).

**Personnel:** The personnel that are needed to conduct this event over a 3 to 6 month period would include at a minimum:

1. **Incident Command System:** At full development will require about 55 Coast Guard officers and senior enlisted personnel in supervisory positions as well as 14 State agency representatives, 7 NOAA representatives, 2 Fish and Wildlife representatives, 5 local agency representatives and 4 responsible party representatives. An estimated 36 junior Coast Guard personnel would fill miscellaneous command support functions and 24 Coast Guard personnel to man boat crews.

2. **Field Operations:** Requires a minimum of 55 Coast Guard enlisted personnel for field teams. The field personnel required from other agencies is estimated at 75.

3. **Contractor personnel:** Difficult to estimate because of the variable manpower requirements for different response strategies; including boom deployment and tending, skimmer operations, shoreline cleanup, and logistical support, personnel levels expected to reach 1000 within the first week and stabilize at up to about 5000 within 3 weeks depending on the extent of shoreline impacts.

**Marine Environmental Response Considerations:**

**Miscellaneous personnel:** Wildlife rescue efforts can be expected to draw over 300 volunteers.

**Hazard assessment:** Utilize MSDS information regarding toxicity, etc. of crude oil. This information should be used to assist in the development of the site safety plan.
**Vulnerability analysis:** The Eastern Central portion of Sector Jacksonville AOR (Brevard County) is the most environmentally sensitive area for this type of event. This area possesses mangroves, sea grass, recreational fishery, bird rookeries, marine mammals, shellfish, turtles, and aquatic preserves.

**Risk assessment:** Oil discharged into the gulfstream would be pushed north by wind action and eastward by the offshore parallel currents. Oil impacting the shoreline is inevitable.

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

**Vessel Traffic Considerations:** The Cape Canaveral area is a major maritime traffic route, especially for cruise ships that are home ported there and transits the area. In the event of a catastrophic pollution incident, cruise ships and mariners should be notified of the potential threat and traffic routing modifications should be considered to minimize the potential hazards and limit exposure to contaminating additional vessels with pollution.

**Response:** Primary response to the event would be all hands on deck at Sector Jacksonville. This would be enough to provide two boat crews, two land-based pollution investigation teams, two casualty investigators and personnel to man the SCC and start contacting additional resources needed to assist. Initial assessment of the casualty and enforcement of the COTP order to close the St. Johns River would come from Sector Jacksonville. Personnel qualified to conduct pollution investigations and monitor cleanup operations would have to be accessed through Seventh Coast Guard District DRAT. Resource support (i.e. Gulf Strike Team, Reservists and NPFC) will be provided by Seventh Coast Guard District via Request for Forces (RFF).

**Cleanup and Disposal:** The cleanup stage of the operation will involve offshore skimming operations and cleaning the many miles of docks, wildlife, marshes, sea walls, and beaches that may become impacted. This part of the operation is expected to last month’s depending on the extent of shoreline impact. When offshore skimming is complete, shoreline clean ups and operations will consist mainly of cleaning the beaches and man-made shore structures (docks, sea walls, etc.) using sorbents, portable skimmers, and pressure washers. Significant impacts will occur to mangrove-lined shorelines if oiled.

The Shoreline Cleanup and Assessment Teams (SCAT), the NOAA SSC and DEP will provide recommendations to the FOSC on the best approach to clean/protect these sensitive resources. This part of the cleanup could take many months and will require hundreds of thousands of feet of sorbent boom and materials. Numerous waste storage areas will be established to store solid and liquid product. In addition, barges and OSRV’s will need to be off-loaded to continue response operations. Options include local incineration of solid oily waste at designated staging areas and/or transporting the material over the road to a Waste Plant, and/or specific hazmat landfill outside the region.

Disposal options will be evaluated by the Disposal Group Supervisor of the Planning Section and coordinated with the Florida DEP representative and IAW federal, state and local laws. Cleanup operations will normally be secured after a joint survey has been conducted by the FOSC, natural resource trustees and state and local agencies. The decision will be based on overflight information, the feasibility of continuing oil removal operations offshore, the daily recovery rate of operating skimmers and the amount of oil remaining on the impacted shorelines. At some point in the operation, the removal actions will cause more damage to the environment than the oil presents.

**9442 HAZMAT Release Scenarios**

This section details the Hazardous Materials Release Scenarios considered in developing the Hazardous Materials Annex to this plan, Annex 7000.
9442.1 Ship at sea scenario – Container Ship Fire

1. Scenario
A 400 foot container ship transiting from South America to Savannah experiences a fire and explosion in its engine room. There are several injuries, the fire is deemed out of control, and the ship is abandoned. On 12 August at 1100 hours (Sunday), the ship is adrift 20 miles out of Mayport (30° 24’ 12”N, 81° 03’ 15” W). The vessel was carrying a mixed cargo including: an unknown number of 6,000 gallon tanks of methyl isocyanate, several tanks of sulfur dioxide gas, 2 - 1 ton cylinders of chlorine and 15,000 gals of diesel. It is unknown if fire has damaged any of these tanks. The vessel is expected to come ashore between St. Augustine Inlet and Ponce de Leon Inlet.

Weather on scene: winds 4-5 knots from NE, 92° F, 8-10 foot seas, flood tide at 1400

2. Primary Concerns
The primary concern is a massive release of toxic gases (methyl isocyanate, sulfur dioxide, chlorine) and the resulting inhalation hazard to population centers. Level A PPE.

3. Determination of the Hazardous Products
   a. Health and Safety Concerns
      • Methyl isocyanate
        Methyl isocyanate (MIC) is a respiratory, eye and skin irritant. The main hazard from MIC is inhalation, and the main mechanism for inhalation toxicity is pulmonary edema. The primary acute problem resulting from methyl isocyanate exposures in Bhopal, India was pulmonary edema. This sometimes was accompanied by alveolar wall destruction. A study with human subjects suggested that acute exposure of 1-5 minutes at 0.4 ppm resulted in no irritation to the eyes, nose or throat. At 2 ppm the subjects experienced irritation and lacrimation. At 4 ppm the symptoms were marked, and at 21 ppm exposure was unbearable. (ACGIH)

        MIC is a potent eye irritant. Many of the victims in Bhopal exhibited corneal damage. At high concentrations MIC is a skin irritant.

        MIC, a liquid at room temperature, has high vapor pressure (348 mm Hg at 68° F). When transported, it is mixed with inhibitors to prevent polymerization. MIC is highly flammable. Airborne vapors of MIC are explosive when exposed to heat, flame or sparks. Vapor may ignite on contact with strong oxidizing agents. Nitrogen oxides are byproducts of MIC combustion. MIC is highly reactive with water, and the heat of the reaction produce isocyanate vapors. It is highly reactive with acid, bases, and some metals.

        Level of concern
        IDLH: 3 ppm (NIOSH, 1997)
        TLV TWA: 0.02 ppm Skin. (©ACGIH, 2001)
        ERPG1: 0.025 ppm (AIHA, 2001)
        ERPG2: 0.5 ppm (AIHA, 2001)
        ERPG3: 5 ppm (AIHA, 2001)

      • Chlorine
        Chlorine gas is a strong irritant, and may cause severe damage to the eyes and respiratory system. The main symptoms are burning and teary eyes, coughing, choking, dizziness and burning sensation of the respiratory tract. Onset of breathing difficulty may be immediate or delayed. Exposure may cause pneumonia, tracheobronchitis, and pulmonary edema. Note: Onset of pulmonary edema may be delayed, and may occur even after exposure to relatively low concentrations of chlorine. Medical attention must be given to any person exposed. High concentration of chlorine may cause skin burning, inflammation, and blister formation.
Studies on acute toxic levels of chlorine suggest that the extent of injury depends on the concentration and duration of exposure as well as the water content of the tissue involved and the presence of underlying cardiopulmonary disease. The estimated clinical effects are as follows: 1-3 ppm: Mild mucous membrane irritation; 5-15 ppm: Moderate irritation of upper respiratory tract; 30 ppm: Immediate chest pain, vomiting, dyspnea, cough; 40-60 ppm: Toxic pneumonitis and pulmonary edema; 430 ppm: Lethal over 30 min; 1000 ppm: Fatal within a few minutes.

Levels of concern
IDLH: 10 ppm (NIOSH, 1997)
TLV TWA: 0.5 ppm Not Classifiable As A Human Carcinogen. (©ACGIH, 2001)
TLV STEL: 1 ppm (©ACGIH, 2001)
ERPG1: 1 ppm (AIHA, 2001)
ERPG2: 3 ppm (AIHA, 2001)
ERPG3: 20 ppm (AIHA, 2001)

• Sulfur Dioxide
Sulfur Dioxide, a gas at room temperature, is a severe irritant to the respiratory tract, and to a lesser degree, to the eyes and skin. There is a significant variation in individual susceptibility to SO2. The very young and old, and persons with respiratory diseases are most affected. Asthmatics sensitivity to SO2 has been found to be approximately ten times higher than non-asthmatics.

In general, low concentrations of SO2 would result in respiratory tract irritation and acidosis of the blood. Moderate concentrations may result in pulmonary edema, a potentially lethal condition, while high concentration may be rapidly lethal due to reflexive constriction of the respiratory tract, and suffocation. Other studies suggest that acute exposure to 5 ppm of SO2 caused dryness of nose and throat, and some resistance to air flow to the lungs, which got worse at increasing concentrations. Sneezing, cough, and eye irritation occurred at 10 ppm. Spasms of the respiratory tract occur at 20 ppm, and at 50 ppm exposure to SO2 results in spasm of the bronchus (air passageway to the lungs) but no injury in less than 30 minutes of exposure. Exposure to SO2 at 1000 ppm and above caused death in 10 minutes to several hours due to respiratory depression.

Sulfur dioxide is heavier than air. It may initially behave as heavy gas, and accumulate in lower areas, under docks etc., where its concentration may remain high for some time, because of poor ventilation in these areas.

The onset of pulmonary edema as a result of exposure to sulfur dioxide may be delayed. All persons exposed to this agent are strongly advised to seek medical attention.

Level of concern
IDLH: 100 ppm (NIOSH, 1997)
TLV TWA: 2 ppm Not Classifiable As A Human Carcinogen (©ACGIH, 2001)
TLV STEL: 5 ppm Not Classifiable As A Human Carcinogen (©ACGIH, 2001)
ERPG1: 0.3 ppm (AIHA, 2001)
ERPG2: 3 ppm (AIHA, 2001)
ERPG3: 15 ppm (AIHA, 2001)

b. Before Entry
• Establish an exclusion zone, control the site.
• Prepare the entry and back up teams, making sure that they have the appropriate PPE and the instruments needed. Prepare a brief site safety plan with essential information ready, including what hospital will accept contaminated injured persons.

• Establish zones, prepare decon. Contributing factors in determining zones size include wind, weather conditions, and suspected concentrations and amounts of Methyl isocyanate, Sulfur Dioxide and Chlorine.
• Call NOAA HAZMAT Scientific Support Coordinator (SSC) for support.

c. Monitoring
Colorimetric tubes (e.g. Drager, Sensidyne) can readily indicate the air concentration of chlorine and sulfur dioxide. Colorimetric tubes are not very accurate (±30%) but are simple, readily available, and easy to use.

We were not able to find colorimetric tube for measuring methyl isocyanate. OSHA recommends using either an Infrared Spectrophotometer such as the MIRAN 1A & 1B, or using a photo ionization detector, a non-specific but readily available instrument.

Electronic gas monitors are available that have either a cell or chip that detect chlorine and sulfur dioxide in air. Most display the concentrations digitally, and sound an alarm if a predetermined level of concern is exceeded. These monitors are simple to use, portable and small (the size of a pocket book), and provide immediate readings.

4. Chemistry of the products involved

• Methyl isocyanate
Methyl isocyanate (MIC) is a highly toxic volatile liquid. It is also flammable with a flash point of about -7°C. It reacts vigorously with water; wetting bulk quantities of MIC with water can generate enough heat to volatilize the material. MIC decomposes on contact with water, a fine water spray can be used to knock down vapors. Runoff will have a high pH as MIC produces water soluble, alkaline decomposition products. Contact with metals, acids and bases will result in exothermic, and possibly vigorous, reactions that can increase volatilization of the material into the air. Contamination of material in cylinders will cause rapid pressure increases that may rupture the containers.

• Chlorine
Chlorine is a gas at normal temperatures and pressures. It is a strong oxidizing agent. Like other strong oxidizers, chlorine can cause ignition of items that are ordinarily thought to be incombustible. For example, chlorine can cause rapid, exothermic oxidation of metals such as iron, copper and aluminum. If these items are in forms with high surface areas, such as shavings or powders, the reaction can be explosive. Chlorine can accelerate the combustion of flammable materials such as hydrocarbons. As an oxidizer, chlorine is also incompatible with reducing agents such as hydrides, sulfites (including SO₂), and nitrites and can cause an explosion when mixed with these materials.

Chlorine is a heavy gas with a green color at high concentrations. It is transported as a compressed liquid. If fire is present, HCl fumes will be evolved.

• Sulfur Dioxide
Sulfur Dioxide is an acidic gas that reacts with water to form sulfurous acid. Sulfurous acid in water is rapidly oxidized to form sulfuric acid, which is a strong acid and can cause pH to drop to less than 2. The rapid formation of sulfuric acid on moist surfaces (e.g., skin, lungs, eyes) is the primary hazard mechanism for SO₂. Although the conversion to sulfuric acid in air is a fairly slow process, the presence of water droplets or aerosols will greatly accelerate the conversion rate. Runoff during a rainstorm, for example, can be expected to be quite acidic. Aqueous solutions of sulfurous acid can off-gas SO₂ while for solutions of sulfuric the principal air hazard is aerosols or spray from the acidic solution.

Note that in situ formation of sulfuric acid from dissolved SO₂ will not produce a dense concentrated sulfuric acid solution that sinks in water, but rather a more dilute solution that will disperse readily.

As an acidic gas, SO₂ will react readily (and exothermically) with basic species such as hydroxides, carbonates, ammonia, amines, amides and metal oxides.
Ordinarily, sulfur dioxide is a mild reducing agent. That is, in the environment one can expect it to oxidize as described above. As such, it is incompatible with oxidizers (e.g., chlorine, fluorine, peroxides). When heated in the presence of reduced material (e.g., aluminum, iron, manganese) it can act as an oxidizing agent and enhance combustion of these materials.

Sulfur dioxide boils at 14°F (-10°C) and is shipped under pressure as a compressed liquefied gas. If exposed to heat, internal pressures can build rapidly and cause a release of material or container failure.

• Diesel Fuel
 Diesel Fuel is a relatively non-toxic mixture of mostly saturated hydrocarbons, although some may contain up to several per cent polycyclic aromatics (PAH) of various types. Atmospheres that present inhalation hazards are unlikely except in enclosed spaces. The material is difficult to ignite under ordinary circumstances, but may burn if involved in a significant fire. In the presence of oxidizers (e.g., oxygen, chlorine, peroxides) it will be more flammable than expected and may be easily ignited. In the presence of high concentrations of strong oxidizers it may ignite spontaneously.

5. Potential Air Impacts

In this scenario, an abandoned vessel is adrift 20 miles out of Mayport. It carries several IMO tanks of methyl isocyanate, or MIC (this is the chemical that caused many deaths in Bhopal, India) as well as an “unknown number” of 6,000-gallon tanks of MIC, several tanks of sulfur dioxide, and 2 1-ton cylinders of chlorine.

MIC is highly toxic by inhalation. A release from one or more of the IMO tanks, perhaps because it has been compromised in the fire, is the greatest potential hazard in this scenario.

To assess the potential hazard from this incident, ALOHA was used to model a release of the full contents of one of the IMO tanks, to form an evaporating pool covering the deck of the vessel. The Emergency Response Planning Guideline-2 (ERPG-2) represents the concentration above which members of the general public might find their ability to escape impaired or might experience serious or irreversible health effects. When the ERPG-2 for MIC, 0.5 ppm, is used as the level of concern, ALOHA predicts that this concentration could be exceeded for more than 6 miles downwind of the vessel. The footprint, shown in Figure 5, has been truncated at 6 miles because uncertainties in wind speed and direction and other terrain and weather factors make it impossible to use ALOHA to accurately forecast cloud dispersion at greater distances. Responders would want to know whether MIC concentrations within populated areas along the coast could reach dangerous levels. While it is not possible to definitively answer this question, these modeling results suggest that the possibility that a MIC hazard could exist in coastal areas should not be ruled out.

Both sulfur dioxide and chlorine also are toxic by inhalation, and would pose a hazard to responders on or near the vessel, if released. Because the amount of sulfur dioxide on the vessel is unknown, the responders should use the DOT Emergency Response Guidebook to choose an evacuation distance for a release of this chemical. In the case of a large spill, the guidebook recommends initial evacuation to 1/3 mile (500 yards) if there is no fire; 1/2 mile (800 yards) if the sulfur dioxide tanks are involved in a fire (note, though, that sulfur dioxide is not considered flammable).

ALOHA was used to model an instantaneous release of chlorine from one of the 1-ton cylinders on board the vessel. The Emergency Response Planning Guideline-2 (ERPG-2) represents the concentration above which members of the general public might find their ability to escape impaired or might experience serious or irreversible health effects. When the ERPG-2 for chlorine, 3 ppm, is used as the level of concern, ALOHA predicts that this concentration could be exceeded for more than about 2 miles downwind of the vessel, posing a potential threat to responders as well as any nearby mariners.

Caveat:
• For this incident, release rate is especially uncertain. The ALOHA footprint and wind uncertainty zone should be considered not as an accurate representation of the hazard area, but only as a very general indication of the potential scale of the hazard. It shows that a large area could potentially be affected, rather than just the vessel and its vicinity.

Assumptions (beyond those stated in the scenario description):
• The IMO tanks each have a volume capacity of 24,000 liters.
• The area of the vessel’s deck is approximately 40,000 feet (assuming a vessel length of 400 feet and approximate beam of 100 feet).

ALOHA results for Jacksonville scenario no. 5. The footprint, which is truncated at 6 miles in length, represents the area where predicted MIC concentrations could exceed ERPG-2 (0.5 ppm), as long as wind speed and direction remain constant. The wind uncertainty lines, which form a half-circle around the release point, indicate that under the weather conditions for this scenario, the wind could switch to blow the gas cloud in any direction within a 180° range.

6. Potential Ecological Effects
The nature of the materials involved in this scenario clearly makes it an extreme human health hazard. Ecological risk considerations are necessarily secondary to health and safety of response personnel and the general public.

Methyl isocyanate
Methyl isocyanate is used primarily in the manufacture of insecticides. It is sparingly soluble in water but is highly toxic and could affect biological resources through inhalation. Animal studies have reported pulmonary edema and upper respiratory tract irritation from acute exposure to methyl isocyanate. Acute animal tests, such as the LC50
and LD50 test in rats, have shown methyl isocyanate to have extreme acute toxicity from inhalation exposure and high acute toxicity from oral exposure. Animal studies have also reported effects on the estrus cycle, decreased fertility, decreased live litter size, and decreased neonatal survival from inhalation exposure to methyl isocyanate.

**Chlorine**

Chlorine is slightly soluble in water, forming an acidic oxidizing solution. Oxidant will be harmful or fatal to marine life for a brief period of time, but material is reduced to chloride relatively quickly unless pH is high (e.g., >9). Solutions will off-gas chlorine, especially at low pH. Solution will remain somewhat acidic, but will disperse readily in water.

**Sulfur Dioxide**

The sulfur dioxide gas is a potent poison and a catastrophic release either at sea or after grounding may cause considerable environmental harm. The corrosiveness of SO2 and its acidic derivatives is enough to damage metals, stone, paint, leather, paper and various fibers, as well as electrical equipment.

SO2 can also directly injure plants. Visible effects include changes in leaf structure such as chlorosis (chlorophyll destruction), necrosis (plant tissue death), and pigment formation. Such visible symptoms are the result of both acute exposure (short-term exposure to high levels) and chronic exposure (long-term exposure to low levels). More subtle effects will not cause visible injury but may include growth reduction after multiple generations.

Different plant species and varieties vary in their sensitivity to SO2. The most sensitive terrestrial plants include pine, legumes, red and black oak, white ash, alfalfa and blackberry. Visible injury can occur when sensitive plants are exposed to SO2 levels as low as 0.12 ppm for eight hours. Alfalfa is the most sensitive agricultural species, with acute effects observed at a level of 1 ppm for one hour. Because of its hypersensitivity, alfalfa has been used as a bio-indicator of SO2 phytotoxicity (plant toxicity) in the ambient atmosphere.

In terrestrial animals, SO2 would be expected to exert its acute toxic effect through respiratory complications and irritation of eyes and skin. Since sulfur dioxide reacts with water to form sulfurous acid, which is rapidly oxidized to sulfuric acid, the mechanism for impact is apparent. This also suggests that the moist tissues around the mouth, nose, and eyes are particularly susceptible to damage in an exposure. Longer-term, sulfur dioxide emissions in Canada have been loosely linked to poor growth rates, reproductive impairments and respiratory disease in cattle.

**Diesel Fuel**

If the diesel fuel is spilled, it will likely result in a localized fish and invertebrate kill immediately down wind and current of the release, but evaporation of the fuel and dilution of water-soluble compounds by the sea water will minimize larger-scale effects to the environment. If the sheens reach the shoreline in a few hours, a slight staining, or greasy film-like bathtub ring (in the case of diesel) is common. These oils usually do not form a stable emulsion and, as a result, do not form a heavy or sticky residual to clean up.

It should be noted that lighter refined products do have a relatively high concentration of light aromatic compounds and tend to be more soluble and more toxic then heavier oils. Therefore these oils may not present an involved cleanup problem, however they can result in an initial toxic shock to biota and persist as a biological threat problem in low energy marine environments.

### 9442.1.1 Chemical Profile: Methyl Isocyanate

Airborne vapors of METHYL ISOCYANATE are explosive when exposed to heat, flame or sparks. Vapor may ignite on contact with strong oxidizing agents. Emits toxic fumes of nitriles and oxides of nitrogen when heated to decomposition [Lewis, 3rd ed., 1993, p. 860]. Caused the death of thousands in 1984 in Bhopal, India when released accidentally as a vapor following an exothermic reaction caused by contamination with water [Chem. Eng.News, 1985, 63(6), p. 27]. Reacts rapidly with acids and bases (including amines). May polymerize in contact
with iron, tin, copper and certain other catalysts such as triphenylarsenic oxide, triethyl phosphine and tributyltin oxide. Polymerizes at elevated temperatures. Attacks some plastics, rubbers, and coatings [NTP].

**Properties**

Flashpoint (cc): 19° F (EPA, 1998)
Lower Exp Limit: 5.3% (EPA, 1998)
Upper Exp Limit: 26% (EPA, 1998)
Auto Igt Temp: 995° F (USCG, 1999)
Melting Point: -112° F (EPA, 1998)
Vapor Pressure: 348 mm Hg at 68° F (EPA, 1998)
Vapor Density: About twice as heavy as air (EPA, 1998)
Specific Gravity: 0.9599 at 68° F (EPA, 1998)
Boiling Point: 102° F at 760 mm (EPA, 1998)
Molecular Weight: 57.05 (EPA, 1998)
IDLH: 3 ppm (NIOSH, 1997)
TLV TWA: 0.02 ppm Skin. (©ACGIH, 2001)
ERPG1: 0.025 ppm (AIHA, 2001)
ERPG2: 0.5 ppm (AIHA, 2001)
ERPG3: 5 ppm (AIHA, 2001)
Water Solubility: Decomposes (NTP, 1992)

**9442.1.2 Chemical Profile: Chlorine**

CHLORINE reacts explosively with or supports the burning of numerous common materials. Ignites steel at 100°C in the presence of soot, rust, carbon, or other catalysts. Ignites dry steel wool at 50°C. Reacts as either a liquid or gas with alcohols (explosion), molten aluminum (explosion), silane (explosion), bromine pent fluoride, carbon disulfide (explosion catalyzed by iron), 1-chloro-2-propyne (excess chlorine causes an explosion), dibutyl phthalate (explosion at 118°C), diethyl ether (ignition), diethyl zinc (ignition), glycerol (explosion at 70-80°C), methane over yellow mercury oxide (explosion), acetylene (explosion initiated by sunlight or heating), ethylene over mercury, mercury(I) oxide, or silver(I) oxide (explosion initiated by heat or light), gasoline (exothermic reaction then detonation), naptha-sodium hydroxide mixture (violent explosion), zinc chloride (exothermic reaction), wax (explosion), hydrogen (explosion initiated by light), Reacts as either a liquid or gas with carbides of iron, uranium and zirconium, with hydrides of potassium sodium and copper, with tin, aluminum powder, vanadium powder, aluminum foil, brass foil, copper foil, calcium powder, iron wire, manganese powder, potassium, antimony powder, bismuth, germanium, magnesium, sodium, and zinc. Causes ignition and a mild explosion when bubbled through cold methanol. Explodes or ignites if mixed in excess with ammonia and warmed. Causes ignition in contact with hydrazine, hydroxylamine, and calcium nitride. Forms explosive nitrogen trichloride from biuret contaminated with cyanuric acid. Readily forms an explosive N-chloro derivative with aziridine. Ignites or explodes with arsine, phosphine, silane, diborane, stibine, red phosphorus, white phosphorus, boron, active carbon, silicon, arsenic. Ignites sulfides at ambient temperature. Ignites (as a liquid) synthetic and natural rubber. Ignites trialkylboranes and tungsten dioxide.

**Properties**

Auto Igt Temp: Not flammable (USCG, 1999)
Melting Point: -150° F (EPA, 1998)
Vapor Pressure: 7600 mm Hg at 86° F (EPA, 1998)
Vapor Density: 2.49 (EPA, 1998)
Specific Gravity: 1.424 at 59° F (USCG, 1999)
Boiling Point: -30.3° F at 760 mm (EPA, 1998)
Molecular Weight: 70.91 (EPA, 1998)
IDLH: 10 ppm (NIOSH, 1997)
TLV TWA: 0.5 ppm Not Classifiable As A Human Carcinogen. (©ACGIH, 2001)
9442.1.3 Chemical Profile: Sulfur Dioxide

SULFUR DIOXIDE is acidic. Reacts exothermically with bases such as amines, amides, metal oxides, and hydroxides. Frequently used as a reducing agent although it is not a powerful one. Acts as a reducing bleach to decolorize many materials. Can act as an oxidizing agent. Supports combustion of powdered aluminum [Mellor 5:209-212 1946-47]. Reacts explosively with fluorine [Mellor 2:1 1946-47]. Supports burning of manganese [Mellor 12:187 1946-47]. Readily liquefied by compression. Contact between the liquid and water may result in vigorous or violent boiling and extremely rapid vaporization. If the water is hot an explosion may occur. Pressures may build to dangerous levels if the liquid contacts water in a closed container [Handling Chemicals Safely 1980]. Supports incandescent combustion of monocesium acetylide, monopotassium acetylide, cesium oxide, iron(II) oxide, tin oxide, and lead oxide [Mellor].

**Properties**
- Auto Igtn Temp: Not flammable (USCG, 1999)
- Melting Point: -98.9° F (EPA, 1998)
- Vapor Pressure: 2432 mm Hg at 68° F (EPA, 1998)
- Vapor Density: 2.26 (EPA, 1998)
- Specific Gravity: 1.434 at 68° F (EPA, 1998)
- Boiling Point: 14° F at 760 mm (EPA, 1998)
- Molecular Weight: 64.07 (EPA, 1998)
- IDLH: 100 ppm (NIOSH, 1997)
- TLV TWA: 2 ppm Not Classifiable As A Human Carcinogen (©ACGIH, 2001)
- TLV STEL: 0.3 ppm (AIHA, 2001)
- ERPG1: 3 ppm (AIHA, 2001)
- ERPG3: 15 ppm (AIHA, 2001)
- Water Solubility: 10% (NIOSH, 1997)

9442.1.4 Chemical Profile: Fuel Oil, Diesel

Saturated aliphatic hydrocarbons, which are contained in FUEL OIL, [DIESEL], may be incompatible with strong oxidizing agents like nitric acid. Charring of the hydrocarbon may occur followed by ignition of unreacted hydrocarbon and other nearby combustibles. In other settings, aliphatic saturated hydrocarbons are mostly unreactive. They are not affected by aqueous solutions of acids, alkalis, most oxidizing agents, and most reducing agents. When heated sufficiently or when ignited in the presence of air, oxygen or strong oxidizing agents, they burn exothermically to produce carbon dioxide and water. May be ignited by strong oxidizers.

**Properties**
- Flashpoint (unspec): 125° F (NTP, 1992)
- Lower Exp Limit: 1.3% (NTP, 1992)
- Upper Exp Limit: 6.0% (NTP, 1992)
- Auto Igtn Temp: 350 to 625° F (USCG, 1999)
- Melting Point: 0° F (NTP, 1992)
- Vapor Pressure: 2.17 mm Hg at 70° F (USCG, 1999)
Specific Gravity: 0.841 at 60.8° F (USCG, 1999)
Boiling Point: 540-640° F at 760 mm (NTP, 1992)
TEEL1: 100 mg/m³ (TEELS, 2001)
TEEL2: 500 mg/m³ (TEELS, 2001)
TEEL3: 500 mg/m³ (TEELS, 2001)
Water Solubility: <1 mg/mL at 66° F (NTP, 1992)

9442.1.5 Chemical Reactivity Worksheet: Methyl Isocyanate

Chemical name: METHYL ISOCYANATE (C₂H₃NO)
CAS number(s): 624-83-9 UNNA number(s): 2480

Synonyms:
ISO-CYANATOMETHANE
ISOCYANIC ACID, METHYL ESTER
METHYL CARBONIMIDE
METHYL ESTER OF ISOCYANIC ACID
MIC
DOT SPANISH
ISOCIANATO DE METILO
DOT FRENCH
ISOCYANATE DE MÉTHYLE

General Description:
A colorless low-boiling liquid (b.p. 39°C) that is denser than water. Flash point is less than 200° F. Very toxic by inhalation. Can be absorbed through the skin. Has a sharp odor, but the sense of smell cannot be relied upon to warn of the presence of vapors at low concentrations. (© AAR, 1999).

Special Hazards:
Water- Reactive
Highly Flammable
Polymerizable
No rapid reaction with Air

Reactive Groups assigned to this chemical:
• Isocyanates and Isothiocyanates, Organic

Air and Water Reactions:
Highly flammable. Reacts exothermically with water to produce carbon dioxide, methylamine, dimethylurea and/or trimethylbiuret. Heat of reaction causes evolution of the vapors of the isocyanate. Reaction is relatively slow below 20°C but becomes violent at more elevated temperatures or in the presence of acids and bases.

Chemical Profile:
Airborne vapors of METHYL ISOCYANATE are explosive when exposed to heat, flame or sparks. Vapor may ignite on contact with strong oxidizing agents. Emits toxic fumes of nitriles and oxides of nitrogen when heated to decomposition [Lewis, 3rd ed., 1993, p. 860]. Caused the death of thousands in 1984 in Bhopal, India when released accidentally as a vapor following an exothermic reaction caused by contamination with water [Chem. Eng. News, 1985, 63(6), p. 27]. Reacts rapidly with acids and bases (including amines). May polymerize in contact with iron, tin, copper and certain other catalysts such as triphenylarsenic oxide, triethyl phosphine and tributyltin oxide. Polymerizes at elevated temperatures. Attacks some plastics, rubbers, and coatings [NTP].
9442.1.6 Chemical Reactivity Worksheet: Chlorine

Chemical name: CHLORINE (Cl₂)
CAS number(s): 7782-50-5
UNNA number(s): 1017

Synonyms:
BERTHOLITE
CHLORINE
CHLORINE MOL.
CHLORINE MOLECULE (Cl₂)
DIATOMIC CHLORINE
DICHLORINE
MOLECULAR CHLORINE
CLORO
DOT SPANISH
CHLORE

General Description:
A greenish yellow gas with a pungent suffocating odor. Toxic by inhalation. Slightly soluble in water. Liquefies at -35°C and room pressure. Readily liquefied by pressure applied at room temperature. Density (as a liquid) 13.0 lb / gal. Contact with unconfined liquid can cause frostbite by evaporative cooling. Does not burn but, like oxygen, supports combustion. Long-term inhalation of low concentrations or short-term inhalation of high concentrations has ill effects. Vapors are much heavier than air and tend to settle in low areas. Contact CHEMTREC to activate chlorine response team 800-424-9300. Used to purify water, bleach wood pulp, and to make other chemicals (© AAR, 1999).

Special Hazards:
Water-Reactive
Strong Oxidizing Agent
No rapid reaction with Air

Reactive Groups assigned to this chemical:
• Inorganic Oxidizing Agents
• Halogenating Agents, Strong

Air and Water Reactions:
Water dissolves about twice its volume of chlorine gas, forming a mixture of hydrochloric acid and hypochlorous acids. Will be corrosive due to acidity and oxidizing potential. Slightly soluble in water.

Chemical Profile:
CHLORINE reacts explosively with or supports the burning of numerous common materials. Ignites steel at 100°C in the presence of soot, rust, carbon, or other catalysts. Ignites dry steel wool at 50°C. Reacts as either a liquid or gas with alcohols (explosion), molten aluminum (explosion), silane (explosion), bromine pent fluoride, carbon disulfide (explosion catalyzed by iron), 1-chloro-2-propyne (excess chlorine causes an explosion), dibutyl phthalate (explosion at 118°C), diethyl ether (ignition), diethyl zinc (ignition), glycerol (explosion at 70-80°C), methane over yellow mercury oxide (explosion), acetylene (explosion initiated by sunlight or heating), ethylene over mercury, mercury(I) oxide, or silver(I) oxide (explosion initiated by heat or light), gasoline (exothermic reaction then detonation), naphtha-sodium hydroxide mixture (violent explosion), zinc chloride (exothermic reaction), wax (explosion), hydrogen (explosion initiated by light). Reacts as either a liquid or gas with carbides of iron, uranium and zirconium, with hydrides of potassium sodium and copper, with tin, aluminum powder, vanadium powder, aluminum foil, brass foil, copper foil, calcium powder, iron wire, manganese powder, potassium, antimony powder,
bismuth, germanium, magnesium, sodium, and zinc. Causes ignition and a mild explosion when bubbled through cold methanol. explodes or ignites if mixed in excess with ammonia and warmed. Causes ignition in contact with hydrazine, hydroxylamine, and calcium nitride. Forms explosive nitrogen trichloride from biuret contaminated with cyanuric acid. Readily forms an explosive N-chloro derivative with aziridine. Ignites or explodes with arsine, phosphine, silane, diborane, stibine, red phosphorus, white phosphorus, boron, active carbon, silicon, arsenic. Ignites sulfides at ambient temperature. Ignites (as a liquid) synthetic and natural rubber. Ignites trialkylboranes and tungsten dioxide.

9442.1.7 Chemical Reactivity Worksheet: Sulfur Dioxide

Chemical name: SULFUR DIOXIDE (SO2)
CAS number(s): 7446-09-5  UNNA number(s): 1079
Synonyms:
FERMENTICIDE LIQUID
SULFUR DIOXIDE
SULFUR DIOXIDE (ANHYDROUS)
SULFUR DIOXIDE (SO2)
SULFUR DIOXIDE, LIQUEFIED
SULFUR OXIDE
SULFUR OXIDE (SO2)
SULFUR SUPEROXIDE
SULFURIOUS ACID ANHYDRIDE
SULFURIOUS ANHYDRIDE
SULFURIOUS OXIDE
SULPHUR DIOXIDE
SULPHUR DIOXIDE, LIQUEFIED

DOT SPANISH  DOT FRENCH
DÍÓXIDO DE AZUFRE  DIOXYDE DE SOUFRE
DÍÓXIDO DE AZUFRE, LICUADO  DIOXYDE DE SOUFRE, LIQUÉFIÉ
d

General Description:
A colorless gas with a choking or suffocating odor. Boiling point -10°C. Heavier than air. Very toxic by inhalation and may irritate the eyes and mucous membranes. Under prolonged exposure to fire or heat the containers may rupture violently and rocket. Used to manufacture chemicals, in paper pulping, in metal and food processing (© AAR, 1999).

Special Hazards:
Water-Reactive
No rapid reaction with Air

Reactive Groups assigned to this chemical:
• Inorganic Reducing Agents
• Acids, Inorganic Non-oxidizing

Air and Water Reactions:
Dissolves in water to form sulfurous acid, a corrosive liquid. Moist sulfur dioxide is very corrosive due to the slow formation of sulfuric acid [Handling Chemicals Safely 1980 p. 876].

Chemical Profile:
SULFUR DIOXIDE is acidic. Reacts exothermically with bases such as amines, amides, metal oxides, and hydroxides. Frequently used as a reducing agent although it is not a powerful one. Acts as a reducing bleach to

9442.1.8 Chemical Reactivity Worksheet: Fuel Oil, Diesel

Chemical name: FUEL OIL, [DIESEL]
CAS number(s): none UNNA number(s): 1993

Synonyms:
DFM
Diesel fuel
DIESEL FUEL OIL
DIESEL OIL, MEDIUM
FUEL OIL
FUEL OIL 1-D
FUEL OIL 2-D
FUEL OIL, [DIESEL]
NCI-C54795
OILS: DIESEL
DOT SPANISH
COMBUSTIBLE DIESEL
DOT FRENCH
HUILE À DIESEL

General Description:
A straw yellow to dark colored liquid with a petroleum-like odor. Flash point below 141°F. Less dense than water and insoluble in water. Hence floats on water. Vapors heavier than air (© AAR, 1999).

Special Hazards:
No rapid reaction with Air
No rapid reaction with Water

Reactive Groups assigned to this chemical:
• Hydrocarbons, Aliphatic Saturated

Air and Water Reactions:
Flammable. Insoluble in water.

Chemical Profile:
Saturated aliphatic hydrocarbons, which are contained in FUEL OIL, [DIESEL], may be incompatible with strong oxidizing agents like nitric acid. Charring of the hydrocarbon may occur followed by ignition of unreacted hydrocarbon and other nearby combustibles. In other settings, aliphatic saturated hydrocarbons are mostly unreactive. They are not affected by aqueous solutions of acids, alkalis, most oxidizing agents, and most reducing agents. When heated sufficiently or when ignited in the presence of air, oxygen or strong oxidizing agents, they burn exothermically to produce carbon dioxide and water. May be ignited by strong oxidizers.
9442.1.9 Chemical Compatibility Worksheet

Compatibility Hazards for the Following List of Reactants:
METHYL ISOCYANATE
CHLORINE
SULFUR DIOXIDE
FUEL OIL, [DIESEL]

Hazard Statements:
SECTION 1 - Hazard Summary for All Possible Pairings of Chemicals:
- Heat generated from chemical reaction may initiate explosion
- May cause fire
- Contact with combustible material may cause fire
- Fire from exothermic reaction-ignition of products or reactants
- Flammable gas generation
- Heat generation by chemical reaction, may cause pressurization
- May cause violent polymerization, possibly with heat/toxic or flammable gas generation or with explosive reaction; causes pressurization
- Can become highly flammable in use; causes pressurization
- Contact with substance liberates toxic gas; causes pressurization
- Innocuous and nonflammable gas generation; causes pressurization

SECTION 2 - Hazard Statements for Each Possible Pairing of Chemicals:

METHYL ISOCYANATE mixed with CHLORINE
- Heat generated from chemical reaction may initiate explosion
- Heat generation by chemical reaction, may cause pressurization
- May cause violent polymerization, possibly with heat/toxic or flammable gas generation or with explosive reaction; causes pressurization
- Can become highly flammable in use; causes pressurization
- Contact with substance liberates toxic gas; causes pressurization

METHYL ISOCYANATE mixed with SULFUR DIOXIDE
- Flammable gas generation
- Heat generation by chemical reaction, may cause pressurization
- May cause violent polymerization, possibly with heat/toxic or flammable gas generation or with explosive reaction; causes pressurization
- Can become highly flammable in use; causes pressurization
- Innocuous and nonflammable gas generation; causes pressurization

METHYL ISOCYANATE mixed with FUEL OIL, [DIESEL]
- No reaction expected

CHLORINE mixed with SULFUR DIOXIDE
- Heat generated from chemical reaction may initiate explosion
- May cause fire
- Contact with combustible material may cause fire
- Fire from exothermic reaction-ignition of products or reactants
- Heat generation by chemical reaction, may cause pressurization
- Can become highly flammable in use; causes pressurization
- Contact with substance liberates toxic gas; causes pressurization

CHLORINE mixed with FUEL OIL, [DIESEL]
- Heat generated from chemical reaction may initiate explosion
- May cause fire
- Contact with combustible material may cause fire
- Fire from exothermic reaction-ignition of products or reactants
- Heat generation by chemical reaction, may cause pressurization

SULFUR DIOXIDE mixed with FUEL OIL, [DIESEL]
- No reaction expected

SECTION 3 - Special Hazards of Each Chemical:

METHYL ISOCYANATE
- Highly Flammable
- Polymerizable
- Water-Reactive

CHLORINE
- Strong Oxidizing Agent
- Water-Reactive

SULFUR DIOXIDE
- Water-Reactive

FUEL OIL, [DIESEL]
- No special hazards for this chemical

9442.1.10 Chemical Compatibility Table

Chemical Names

METHYL ISOCYANATE
SULFUR DIOXIDE

COMPATIBILITY CHART

<table>
<thead>
<tr>
<th></th>
<th>METHYL ISOCYANATE</th>
<th>SULFUR DIOXIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYL ISOCYANATE</td>
<td>101,103,107</td>
<td>B5,C1,D1,D2,D4</td>
</tr>
<tr>
<td>SULFUR DIOXIDE</td>
<td>B5,C1,D1,D2,D4</td>
<td>107</td>
</tr>
</tbody>
</table>

HAZARD STATEMENTS

B5 - Flammable gas generation
C1 - Heat generation by chemical reaction, may cause pressurization
D1 - May cause violent polymerization, possibly with heat/toxic or flammable gas generation or with explosive reaction; causes pressurization
D2 - Can become highly flammable in use; causes pressurization
D4 - Innocuous and nonflammable gas generation; causes pressurization
101 - Highly Flammable
103 - Polymerizable
107 - Water-Reactive
### 9442.1.11 Detailed ALOHA Output

**SITE DATA INFORMATION:**
- **Location:** JACKSONVILLE, FLORIDA
- **Building Air Exchanges Per Hour:** 0.46 (sheltered single storyed)
- **Time:** July 29, 2002 & 1500 hours EDT (user specified)

**CHEMICAL INFORMATION:**
- **Chemical Name:** METHYL ISOCYANATE
- **Molecular Weight:** 57.05 kg/kmol
- **TLV-TWA:** 0.02 ppm
- **IDLH:** 3 ppm
- **Boiling Point:** 101.93°F
- **Vapor Pressure at Ambient Temperature:** 0.82 atm
- **Ambient Saturation Concentration:** 818,844 ppm or 81.9%

**ATMOSPHERIC INFORMATION:** (MANUAL INPUT OF DATA)
- **Wind:** 4 knots from NE at 10 meters
- **No Inversion Height**
- **Stability Class:** B
- **Air Temperature:** 92°F
- **Relative Humidity:** 50%
- **Ground Roughness:** open country
- **Cloud Cover:** 5 tenths

**SOURCE STRENGTH INFORMATION:**
- **Puddle Area:** 40,000 square feet
- **Puddle Volume:** 24,000 liters
- **Soil Type:** Default
- **Ground Temperature:** 92°F
- **Initial Puddle Temperature:** Ground temperature
- **Release Duration:** 14 minutes
- **Max Computed Release Rate:** 6,270 pounds/min
- **Max Average Sustained Release Rate:** 5,000 pounds/min
- **Total Amount Released:** 48,347 pounds

**FOOTPRINT INFORMATION:**
- **Model Run:** Heavy Gas
- **User-specified LOC:** 0.5 ppm
- **Max Threat Zone for LOC:** greater than 6 miles

ALOHA results for a methyl isocyanate release

### 9442.2 Ship in Port Scenario - Chemicals on Container Ship

1. **Scenario**

At 1545, 2 August, a 360’ container ship, moored at Berth 6 at Jax Port Authority Talleyrand Marine Terminal (30 21.0’N, 81 37/2’W) was being loaded. A crane dropped a container onto several stacked cargo containers aboard the ship, knocking containers onto pier, into water and damaging others in the hold. This accident also causes the vessel to sink. The ship was carrying general cargo and hazmat onboard including 20 -1 ton cylinders of chlorine (UN1017), 80-55 gal drums of phosphoric acid (UN1805), 10 cylinders of ethylene oxide (UN1040), 300 batteries (UN2796), 200 single cans of paint (UN1263), 500 cans (consumer commodities) of aerosols (UN1950). The containers with chlorine, phosphoric acid and ethylene oxide spill onto dock, causing a continuous release of some unknown amount of these chemicals. Containers with batteries, paints and aerosols eventually go into water.

Weather on scene: winds at 5-10 kts from SW, 95°F, thunderstorms developing in the SW moving to the NE, seas calm, high tide at 1445
2. **Primary Concerns**

The primary concerns of this scenario are the chlorine and ethylene oxide gases. Level A PPE.

3. **Determination of the Hazardous Products**

   a. **Health and Safety Concerns**

   - **Ethylene oxide**
     Ethylene oxide is very reactive, toxic and flammable. EtO explosive range is between 3-100%, and its flash point is lower than 0 °F, making it extremely flammable. It may react with the phosphoric acid and chlorine to polymerize violently or ignite. Contact of EtO with rust (widely present in ports) further increase its flammability potential.

     EtO is toxic by inhalation. Exposure to low vapor concentrations (10-50 ppm) often resulted in delayed nausea and vomiting. Higher concentrations (over 50 ppm) also produced irritation of the eyes, nose, and throat. High concentration (over 200 ppm) may cause edema of the lungs. Contact with skin causes blistering and burns. Ethylene oxide is carcinogenic to human on prolonged exposure.

     Based on acute toxicity data in animals, it has been suggested that injury or death would be associated with exposure to 8,000 ppm for 10 minutes, 4,000 ppm for 30 minutes, or 2,000 ppm for 60 minutes (NIOSH)

   **Levels of concern**
   - IDLH: 800 ppm; Not applicable for Ethylene oxide, a potential human carcinogen. (NIOSH, 1997)
   - TLV TWA: 1 ppm Suspected human carcinogen. (©ACGIH, 2001)
   - ERPG1: not appropriate (AIHA, 2001)
   - ERPG2: 50 ppm (AIHA, 2001)
   - ERPG3: 500 ppm (AIHA, 2001)

   **Chlorine**
   Chlorine gas is a strong irritant, and may cause severe damage to the eyes and respiratory system. The main symptoms are burning and teary eyes, coughing, choking, dizziness and burning sensation of the respiratory tract. Onset of breathing difficulty may be immediate or delayed. Exposure may cause pneumonia, tracheobronchitis, and pulmonary edema. **Note:** Onset of pulmonary edema may be delayed, and may occur even after exposure to relatively low concentrations of chlorine. Medical attention must be given to any person exposed. High concentration of chlorine may cause skin burning, inflammation, and blister formation.

   Studies on acute toxic levels of chlorine suggest that the extent of injury depends on the concentration and duration of exposure as well as the water content of the tissue involved and the presence of underlying cardiopulmonary disease. The estimated clinical effects are as follows: 1-3 ppm: Mild mucous membrane irritation; 5-15 ppm: Moderate irritation of upper respiratory tract; 30 ppm: Immediate chest pain, vomiting, dyspnea, cough; 40-60 ppm: Toxic pneumonitis and pulmonary edema; 430 ppm: Lethal over 30 min; 1000 ppm: Fatal within a few minutes. 3

   **Level of concern**
   - IDLH: 10 ppm
   - TLV: 8 hr TWA-0.5 ppm, 15 min STEL-1.5 ppm
   - ERPG-1: 1 ppm
   - ERPG-2: 3 ppm
   - ERPG-3: 20 ppm

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Both Chlorine and ethylene oxide are heavier than air and in conditions of low air turbulence tends to settle at low places. This point should be remembered before entry into confined space and when sampling for chlorine and ethylene oxide.

Chlorine and ethylene oxide cylinders may rupture violently due to over pressurization under heat. Ethylene oxide is extremely reactive and flammable. Chlorine is not combustible but would support combustion (it is a potent oxidizer). Combustion of other materials with chlorine is likely to generate toxic gases.

**•Phosphoric acid**
Phosphoric acid is corrosive to the skin and is a severe eye irritant. Under normal conditions it pose little inhalation hazard, because at room temperature its vapor pressure is low (0.03 mm Hg). Phosphoric acid is non-combustible, but under heat may decompose and emit corrosive and toxic phosphorous oxide fumes.

**Level of concern**

<table>
<thead>
<tr>
<th>IDLH</th>
<th>1000 mg/m3 (NIOSH, 1997)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLV TWA</td>
<td>1 mg/m3 (©ACGIH, 2001)</td>
</tr>
<tr>
<td>TLV STEL</td>
<td>3 mg/m3 (©ACGIH, 2001)</td>
</tr>
<tr>
<td>TEEL1</td>
<td>3 mg/m3 (TEELS, 2001)</td>
</tr>
<tr>
<td>TEEL2</td>
<td>5 mg/m3 (TEELS, 2001)</td>
</tr>
<tr>
<td>TEEL3</td>
<td>500 mg/m3 (TEELS, 2001)</td>
</tr>
</tbody>
</table>

**b. Before Entry**

- Establish an exclusion zone, control the site.
- Prepare the entry and back up teams, making sure that they have the appropriate PPE and the instruments needed. Prepare a brief site safety plan with essential information ready, including what hospital will accept contaminated injured persons.
- Establish zones, prepare decon. Contributing factors in determining zones size include wind, weather conditions, and suspected concentrations and amounts of Ethylene Oxide and Chlorine.
- Call NOAA HAZMAT Scientific Support Coordinator (SSC) for support.

**c. Monitoring:**

Colorimetric tubes (e.g. Drager, Sensidyne) can readily indicate the air concentration of chlorine and ethylene oxide. Colorimetric tubes are not very accurate (± 30%) but are simple, readily available, and easy to use.

Electronic gas monitors have either a cell or chip that detects chlorine in the air. Most display the concentrations digitally, and sound an alarm if a predetermined level of concern is exceeded. These monitors are simple to use, portable and small (the size of a pocket book), and provide immediate readings.

**4. Chemistry of the products involved**

**•Ethylene oxide**

Ethylene oxide (EtO) is an extremely hazardous material. It is a colorless gas with a boiling point of 12°C. It is shipped in cylinders as a compressed liquid. A suspected human carcinogen, its greatest hazard derives from its chemical instability. Its flammability range is from 3% to 100%. It is capable of explosive decomposition in the absence of air. Although highly soluble in water, its vapor pressure and explosion limits are such that explosive atmospheres can form above aqueous solutions with concentrations above 5% EtO, especially in poorly ventilated area. Ethylene oxide vapors have a higher potential than most vapors to produce vapor cloud explosions, although the occurrence of vapor cloud explosions with EtO seems to be rare.

In general EtO disasters involve heating a container of EtO to its decomposition temperature either by an outside source such as a fire (including burning EtO that has escaped from the container) or by internal reactions within the container. Reactions within a container that can cause temperature rises leading to explosive decomposition are
isomerization, polymerization, disproportionate, and hydrolysis. Note that the first three of the preceding reactions do not require an additional reactant and can occur in an uncontaminated, intact container if the temperature of the material is allowed to rise sufficiently. All of these reactions are exothermic and can lead to runaway propagation and explosions. The frequently listed decomposition temperature of is misleading from a safety standpoint. The decomposition temperature and auto ignition temperature are listed as 560° and 429°C, respectively. However, the material polymerizes at 200°C and this exothermic reaction can lead to thermal runaway, and ultimately to explosive decomposition. Furthermore, increased pressures, such as might occur in heated tanks, lowers these critical temperatures. Contaminants—particularly metals, metal oxides, acids and bases—can further lower these temperatures and, over the course of several (e.g., 12-48) hours lead to spontaneous detonation at normal ambient temperatures.

• Chlorine
Chlorine is a gas at normal temperatures and pressures. It is a strong oxidizing agent. Like pure oxygen, chlorine can cause ignition of items that are ordinarily thought to be incombustible. For example, chlorine can cause rapid, exothermic oxidation of metals such as iron, copper and aluminum. If these items are in forms with high surface areas, such as shavings or powders, the oxidation can be explosive. Chlorine can accelerate the combustion of flammable materials such as hydrocarbons. As an oxidizer, chlorine is also incompatible with reducing agents such as hydrides, sulfites (including SO₂), and nitrites and can cause an explosion when mixed with these materials.

Chlorine is a heavy gas with a green color at high concentrations. It is transported as a compressed liquid. If fire is present, HCl fumes will be evolved.

• Phosphoric Acid
Phosphoric Acid is usually seen as a syrupy solution with a high density, although solutions less than 75% (w/w) H₃PO₄ are fluid. If cooled concentrated solutions can form a glassy solid crystals and pure phosphoric acid has a melting point of 42°C. The specific gravity of pure phosphoric acid is 1.9; a 40% solution has a specific gravity of 1.3. If spilled into the water it will tend to sink and, because of its density, will be resistant to dispersion even though it is fully miscible in water. Phosphoric acid corrodes metals with the evolution of hydrogen and can create an explosion hazard in poorly ventilated areas. Phosphoric acid is a strong acid and will cause extreme drops in pH when spilled into water. Aerosols or spray from the acid or contaminated water will be hazardous due to low pH.

• Other Chemicals involved
UN1950 refers to several types of AEROSOL DISPENSERS, some of which may contain flammable, corrosive or toxic materials. DOT labeling required for flammable or corrosive contents. Aerosols may explode on heating. Some dispensers may contain flammable propellants that will ignite nearby combustibles. Some may contain toxic material. Aerosol dispensers usually do not contain highly reactive material, although the reactivity of contents should be verified if possible.

BATTERIES [WET, FILLED WITH ACID] are the same type of batteries as found in automobiles and lawn equipment. The batteries contain sulfuric acid and lead electrodes contained in a rubber or, usually, plastic case. The immediate hazard associated with the batteries is the potential release of sulfuric acid. Except when a large number of the batteries have damaged cases, the release rate will be slow. Also for most batteries, the amount of acid is relatively small, on the order of 1L per battery. The batteries represent a relatively minor acute environmental hazard although limited areas of low pH may occur. Long term, the batteries should be removed as they represent a significant source of lead contamination especially in a brackish or salt water environment where chloride levels are high. High chloride levels enhance the solubility of lead. With respect to the acute hazard, the chemistry of the spilled material is the same as sulfuric acid, a dense acid that sinks in water and resists mixing because of its high density. Sulfuric acid spilled into an enclosed space can create an explosion hazard because of the hydrogen generated in its action on metals.

UN1263 refers to several paint formulations, all of which are organic solvent based (or oil) paints. Some may be labeled combustible or flammable. Oil based paints are flammable and will not mix well with water, tending to float on the surface. The solvent in oil based paints is flammable and will react with oxidizers to generate heat and may
subsequently ignite the paint or other nearby combustibles. Latex paints are water based and are not flammable. Latex paints will mix readily into the water column, but they will also disperse readily.

5. Potential Air Impacts

In this scenario, 20 1-ton cylinders of chlorine and 10 cylinders of ethylene oxide (EtO), along with drums of phosphoric acid, have spilled from a container vessel onto a dock. At least some of the cylinders are leaking at an unknown but continuous rate. Both chlorine and EtO are gases under ambient conditions, though they are stored as liquids under pressure. When released, they would escape into the atmosphere to form hazardous vapor clouds.

Phosphoric acid is an aqueous solution. Because its vapor pressure is low under ambient conditions, it is unlikely to pose an air hazard beyond the immediate vicinity of the evaporating pool. If the phosphoric acid were to contact spilled chlorine and/or ethylene oxide, toxic and/or flammable gases could be generated that could pose a hazard to people in the vicinity of the dock. If it were to contact metal, flammable hydrogen gas could be generated, posing a hazard to responders.

There are many unknowns in this scenario. Most important for predicting air hazard is the uncertainty in the release rates of chlorine and EtO: perhaps only a few cylinders are leaking, or perhaps all of them are; the leak rates from individual cylinders might be slow or fast. Because of this uncertainty, this scenario was conservatively modeled in ALOHA by making the worst-case assumption that the entire amount of chlorine and EtO was released from the cylinders at a steady rate for an hour.

Chlorine’s main hazard to human health and safety is toxicity. The Emergency Response Planning Guideline-2 (ERPG-2) represents the concentration above which members of the general public might find their ability to escape impaired or might experience serious or irreversible health effects. When the ERPG-2 for chlorine, 3 ppm, is used as the level of concern, ALOHA predicts that this concentration could be exceeded for as far as 2.8 miles downwind of the leaking cylinders. The footprint, shown in Figure 3, represents the area that could be at risk as long as the wind does not switch speed or direction. However, in this scenario, atmospheric conditions are relatively unstable, making it likely that the wind would switch direction and/or speed. This likelihood of wind changes is illustrated by the wind uncertainty lines in Figure 4, which form a half-circle around the source point to indicate that the wind could switch to blow from any direction within a 180° range.

EtO poses two kinds of threats to human health and safety: it is both toxic and flammable. To assess the extent of the area where EtO could pose a toxic hazard to people, the release of 10 tons of EtO (assumed to be the total contents of the 10 EtO cylinders) over an hour was modeled in ALOHA. Under the weather conditions for this scenario, ALOHA predicts that the ERPG-2 for EtO (50 ppm) could be exceeded as far as 1,000 yards downwind of the leaking cylinders. The footprint, shown in Figure 4, represents the area that could be at risk as long as the wind does not switch speed or direction. However, in this scenario, atmospheric conditions are relatively unstable, making it likely that the wind would switch direction and/or speed. This likelihood of wind changes is illustrated by the wind uncertainty lines in Figure 4, which form a half-circle around the source point to indicate that the wind could switch to blow from any direction within a 180° range.

To assess the extent of the area where EtO could pose a flammable hazard, the same release was modeled in ALOHA, this time using one-tenth of the lower flammability limit for EtO as the level of concern (LOC). This value is 0.3% or 3,000 ppm. ALOHA predicted that this LOC could be exceeded as far as about 100 yards downwind. This distance is too short to be shown as a footprint on the map. However, responders should note that any vessel transiting near the release point could potentially serve as an ignition source for the flammable EtO vapors.

The results of ALOHA modeling show that, while it’s not possible to accurately delineate the potential affected area because of the uncertain release rates, it’s evident that the release of the chlorine could pose a greater toxic hazard, potentially affecting a large geographic area. In contrast, release of the EtO, though it would be more likely to affect a much smaller area, could pose a significant hazard to responders and others close to the dock, because this
chemical poses both a toxic and flammability hazard. If EtO vapors (at a concentration within EtO’s flammability limits) were to contact an ignition source, the vapors could ignite. Personnel would need to be protected both from a toxic threat and from the threat of a vapor cloud fire.

Caveat:
• Chlorine and ethylene oxide are heavy gases; responders should be alert to the possibility of vapors collecting in low areas.
• For this incident, the ALOHA footprints are likely to be overestimates and should be considered conservative estimates of the hazard area.
• The effects of a mixture of chlorine and EtO gas on human health have not been characterized, but could be worse than the effects of either chemical alone.

Assumptions (beyond those stated in the scenario description):
• EtO cylinders are 1 ton each, making a total of 10 tons of EtO.
ALOHA results for Jacksonville scenario no. 4. The footprint, which is about 2.8 miles in length, represents the area where predicted chlorine concentrations could exceed ERPG-2 (3 ppm), as long as wind speed and direction remain constant. The wind uncertainty lines, which form a half-circle around the release point, indicate that under the weather conditions for this scenario, the wind could switch to blow the gas cloud in any direction within a 180° range.

ALOHA results for Jacksonville scenario no. 4. The footprint, which is about 1,000 yards in length, represents the area where predicted ethylene oxide concentrations could exceed ERPG-2 (50 ppm), as long as wind speed and direction remain constant. The wind uncertainty lines, which form a half-circle around the release point, indicate that under the weather conditions for this scenario, the wind could switch to blow the gas cloud in any direction within a 180° range.

6. Potential Ecological Effects

With a spill of an unspecified combination and amount of chlorine, phosphoric acid, and ethylene oxide from the compromised containers at the terminal, the assessment and securing this immediate health and safety danger will be the focus of the initial response.

The focus of the ecological assessment will be the potential release from containers dumped into the water around the terminal. These containers are known to hold batteries, paints, and aerosols. It is not known at this time if containment has been compromised and if these materials are leaking into the environment.
Batteries
The batteries being transported in the container are not likely to pose an environmental risk due to the (apparently) small quantity involved and expected lack of transport away from the initial accident scene. However, batteries do contain lead, cadmium, mercury, copper, zinc, lead, manganese, nickel, or lithium. These metals include forms considered to be very toxic, and hence should not be completely ignored as a threat.

If the batteries in question are common lead-acid units, then their introduction into the near shore environment primarily involves the risk from sulfuric acid and elemental lead. A typical lead-acid battery contains about 15 to 20 pounds of lead per battery and about 1 to 2 gallons of sulfuric acid. The lead plates installed as components in lead-acid batteries are unlikely to move from the location where they spilled. However, they should be removed from the marine environment and appropriately disposed. The sulfuric acid contained in the batteries would not be considered to be a major environmental threat unless the amount of acid released to the water was hundreds or thousands of gallons (the natural buffering capacity of seawater would prevent significant depression of pH).

Other battery types present similar challenges of heavy metal introduction into the environmental and some sort of electrolytic fluid or material. Complete failure of the original container, case boxes, and battery sleeves or jackets would be necessary to directly expose the potentially harmful materials to living resources. Physical removal of the batteries is the preferred response. In a situation where battery components are released, minimizing exposure to living resources would be preferred: physical recovery of solid materials and water-surface recovery of floating liquids.

•Paints
Type of paint being carried in the container was not identified. Characteristics of any of these materials entering the water will substantially affect biological impact and the environmental persistence of the spilled substances. In general, however, paints can be assumed to be acutely toxic to living resources it may contact in fresh (liquid) form. Solubility and density characteristics of the paints will determine the specific portion of the habitat of greatest concern. With a water-soluble material such as latex paint, containment will be difficult and facilitating dilution may be the most effective response strategy for reducing harm to resources at risk. With oil-based materials, containment on the surface may be possible but water-column impacts should be anticipated due to the content of volatile and soluble components.

•Aerosols
Although no information is provided concerning the contents or characteristics of these materials, if we assume that these are contained in individual cans or otherwise packaged, then the environmental risk posed by the incident may be minimal. Any material released would likely have toxicity characteristics similar to the paints.

9442.2.1 Chemical Profile: Ethylene Oxide
ETHYLENE OXIDE. Colorless gas at room temperature (b.p. 11°C), confirmed carcinogen. Highly flammable, severe explosion hazard when exposed to flame. The auto ignition temperature may be as low as 140°C in presence of rust. Rapid compression of the vapor with air causes explosion. Ethylene oxide vapor may be initiated into explosive decomposition in absence of air [Hess, L. G., et al., Ind. Eng. Chem., 1950, 42, p. 1251]. Metal fittings containing magnesium, copper or silver should be avoided, since traces of acetylene in ethylene oxide may produce metal acetylides capable of detonating the vapor [MCA SD-38, 1971]. Violent polymerization occurs on contact with strong bases (alkali hydroxides, ammonia) or acids, amines, metallic potassium, oxides (aluminum oxide, iron oxide, rust), covalent halides (aluminum chloride, ferric chloride, tin(IV) chloride) [Gupta, A. K., J. Soc. Chem. Ind., 1949, 68, p. 179]. Violent reaction with m-nitroaniline, magnesium perchlorate, mercaptans, thiols, triethylamine [Bretherick, 5th ed., 1995, p. 316].

Properties
Flashpoint (unspc): Greater than -0.4F, but less than 0F (OC). (EPA, 1998)
Lower Exp Limit: 3% (EPA, 1998)
Upper Exp Limit: 100% (EPA, 1998)
Auto Igtn Temp: 804° F (USCG, 1999)
Melting Point: -170.5° F (EPA, 1998)
Vapor Pressure: 1095 mm Hg at 68° F (EPA, 1998)
Vapor Density: 1.49 (EPA, 1998)
Specific Gravity: 0.8222 at 50° F (EPA, 1998)
Boiling Point: 51.3° F at 760 mm (EPA, 1998)
Molecular Weight: 44.06 (EPA, 1998)
IDLH: 800 ppm; Not applicable for Ethylene oxide, a potential human carcinogen. (NIOSH, 1997)
TLV TWA: 1 ppm Suspected human carcinogen. (©ACGIH, 2001)
ERPG1: not appropriate (AIHA, 2001)
ERPG2: 50 ppm (AIHA, 2001)
ERPG3: 500 ppm (AIHA, 2001)
TEEL1: 3 ppm (TEELS, 2001)
Water Solubility: Miscible (NTP, 1992)

9442.2.2 Chemical Profile: Chlorine

Refer to Section 9442.1.2.

9442.2.3 Chemical Profile: Phosphoric Acid

PHOSPHORIC ACID reacts exothermically with bases. May react with active metals, including such structural metals as aluminum and iron, to release hydrogen, a flammable gas. Can initiate the polymerization of certain classes of organic compounds. Reacts with cyanide compounds to release gaseous hydrogen cyanide. May generate flammable and/or toxic gases in contact with dithiocarbamates, isocyanates, mercaptans, nitriles, nitriles, sulfides, and strong reducing agents. Forms explosive mixture with nitromethane. Reacts violently with sodium tetrahydroborate. In the presence of chlorides can corrode stainless steel to form explosive hydrogen gas. Emits toxic and irritating fumes of oxides of phosphorus when heated to decomposition [Lewis, 3rd ed., 1993, p. 1029].

Properties
Auto Igtn Temp: Not flammable (USCG, 1999)
Melting Point: 108° F (NIOSH, 1997)
Vapor Pressure: 0.03 mm Hg (NIOSH, 1997)
Specific Gravity: 1.892 at 77° F (USCG, 1999)
Boiling Point: >266° F at 760 mm (USCG, 1999)
Molecular Weight: 98.00 (USCG, 1999)
IDLH: 1000 mg/m3 (NIOSH, 1997)
TLV TWA: 1 mg/m3 (©ACGIH, 2001)
TLV STEL: 3 mg/m3 (©ACGIH, 2001)
TEEL1: 3 mg/m3 (TEELS, 2001)
TEEL2: 5 mg/m3 (TEELS, 2001)
TEEL3: 500 mg/m3 (TEELS, 2001)
Water Solubility: Miscible (NIOSH, 1997)

9442.2.4 Chemical Profile: Aerosol Dispensers

AEROSOL DISPENSERS. Resultant reactivity depends on the exact nature of the mixtures. These materials
include CFCs, ethylene oxide mixtures with CO₂ and CFC, nitrous oxide and CO₂. Some may burn, but none ignite readily. Containers may explode when heated. Ruptured cylinders may rocket. (DOT, 1996)

Properties
no data

9442.2.5 Chemical Profile: Batteries

BATTERIES, [WET, FILLED WITH ACID] contain aqueous sulfuric acid. May continuously evolve hydrogen, a flammable gas. The fluid reacts with chemical bases (for example: amines and inorganic hydroxides) These reactions can generate dangerously large amounts of heat in small spaces. Dilution of the fluid with water may generate significant heat. The addition of water to the fluid can generates sufficient heat in the small region of mixing to cause some of the water to boil explosively and spatter the acidic fluid. The fluid reacts with active metals, including such structural metals as aluminum and iron, to release hydrogen, a flammable gas. Can catalyze (increase the rate of) chemical reactions. Can initiate the polymerization of certain classes of organic compounds. Reacts with cyanide compounds to release gaseous hydrogen cyanide. Generates flammable and/or toxic gases in contact with dithiocarbamates, isocyanates, mercaptans, nitriles, nitrites, sulfides, and strong reducing agents. Additional gas-generating reactions occur with sulfites, nitrites, thiosulfates (to give H₂S and SO₃), dithionite (SO₂), and even carbonates: the carbon dioxide gas from the last is nontoxic but the heat and spattering from a rapid reaction can be troublesome.

Properties
Auto Igtn Temp: Not flammable (USCG, 1999)
Melting Point: 50.65° F (EPA, 1998)
Vapor Pressure: 1 mm Hg at 294.8° F (EPA, 1998)
Vapor Density: 3.4 (EPA, 1998)
Specific Gravity: 1.841 at 68° F (EPA, 1998)
Boiling Point: 554° F at 760 mm (EPA, 1998)
Molecular Weight: 98.08 (EPA, 1998)
IDLH: 15 mg/m³ (NIOSH, 1997)
TLV TWA: 1 mg/m³ Suspected Human Carcinogen. (©ACGIH, 2001)
TLV STEL: 3 mg/m³ Suspected Human Carcinogen. (©ACGIH, 2001)
ERPG1: 2 mg/m³ (AIHA, 2001)
ERPG2: 10 mg/m³ (AIHA, 2001)
ERPG3: 30 mg/m³ (AIHA, 2001)
Water Solubility: Miscible (NIOSH, 1997)

9442.2.6 Chemical Profile: Paint

PAINT may react vigorously with strong oxidizing agents. May react exothermically with reducing agents to release gaseous hydrogen.

Properties
Flashpoint (unspc): < 141° F (© AAR, 1999)

9442.2.7 Chemical Reactivity Worksheet: Ethylene Oxide

Chemical name: ETHYLENE OXIDE (C₂H₄O)
CAS number(s): 75-21-8 UNNA number(s): 1040
Synonyms:
1,2-EPOXY ETHANE   1,2-EPOXYETHANE
ALPHA, BETA-OXIDOETHANE   AMPROLENE
ANPROLENE   ANPROLINE
CIBA-GEIGY 9138   DIHYDROOXIRENE
DIMETHYLENE OXIDE   E O
E.O.   ENT-26263
EPOXYETHANE   ETHENE OXIDE
ETHOX   ETHYLENE OXIDE
ETHYLENEOXY   ETO
FEMA NO. 2433   MERPOL
NCI-C50088   OXACYCLOPROPANE
OXANE   OXIDOETHANE
OXIRAN   OXIRANE
OXIRENE, DIHYDRO-   OXYFUME
OXYFUME 12   RCRA WASTE NUMBER U115
STERILIZING GAS ETHYLENE OXIDE 100%
T-GAS   UN 1040
DOT SPANISH
OXIDO DE ETILENO
DOT FRENCH
OXYDE D’ÉTHYLÈNE

General Description:
A clear colorless volatile liquid with an ethereal odor. Flash point below 0°F. May polymerize exothermically if heated or contaminated. If the polymerization takes place inside a container, the container may rupture violently. Vapors may burn inside a container. Vapors irritate the eyes, skin, and respiratory system. Prolonged skin contact may result in delayed burns. Less dense than water. Vapors heavier than air. Vapors very toxic. Under prolonged exposure to fire or heat the containers may rupture violently and rocket. Used to make other chemicals, as a fumigant and industrial sterilant (© AAR, 1999).

Special Hazards:
Highly Flammable
Polymerizable
No rapid reaction with Air
No rapid reaction with Water

Reactive Groups assigned to this chemical:
• Epoxides

Air and Water Reactions:
Highly flammable. Flammable over a wide vapor-air concentration range. Must be diluted on the order of 24 to 1 with water to lose flammability. Soluble in water.

Chemical Profile:
Colorless gas at room temperature (b.p. 11°C), confirmed carcinogen. Highly flammable, severe explosion hazard when exposed to flame. The auto ignition temperature may be as low as 140°C in presence of rust. Rapid compression of the vapor with air causes explosion. Ethylene oxide vapor may be initiated into explosive decomposition in absence of air [Hess, L. G., et al., Ind. Eng. Chem., 1950, 42, p. 1251]. Metal fittings containing magnesium, copper or silver should be avoided, since traces of acetylene in ethylene oxide may produce metal acetylides capable of detonating the vapor [MCA SD-38, 1971]. Violent polymerization occurs on contact with strong bases (alkali hydroxides, ammonia) or acids, amines, metallic potassium, oxides (aluminum oxide, iron oxide,

9442.2.8 Chemical Reactivity Worksheet: Chlorine

Refer to Section 9442.1.6.

9442.2.9 Chemical Reactivity Worksheet: Phosphoric Acid

**Chemical name** PHOSPHORIC ACID (H₃PO₄)
**CAS number(s):** 7664-38-2
**UNNA number(s):** 1805

**Synonyms:**
- 3M ETCHING LIQUID
- C 134 (ACID)
- C 434 (ACID)
- EVITS
- KEFO
- ORTHOPHOSPHORIC ACID
- PHOSPHORIC ACID (AQUEOUS)
- SONAC
- SPA 2 (CATALYST)
- WHITE PHOSPHORIC ACID
- ACIDO FOSFÓRICO
- ACIDE PHOSPHORIQUE

**General Description:**
A clear colorless liquid or transparent crystalline solid. The pure solid melts at 42.35°C and has a density of 1.834 g/cm³. Liquid is usually an 85% aqueous solution. Shipped as both a solid and liquid. Corrosive to metals and tissue. Used in making fertilizers and detergents and in food processing (© AAR, 1999).

**Special Hazards:**
- No rapid reaction with Air
- No rapid reaction with Water

**Reactive Groups assigned to this chemical:**
- Acids, Inorganic Non-oxidizing

**Air and Water Reactions:**
Soluble in water with small release of heat.

**Chemical Profile:**
PHOSPHORIC ACID reacts exothermically with bases. May react with active metals, including such structural metals as aluminum and iron, to release hydrogen, a flammable gas. Can initiate the polymerization of certain classes of organic compounds. Reacts with cyanide compounds to release gaseous hydrogen cyanide. May generate flammable and/or toxic gases in contact with dithiocarbamates, isocyanates, mercaptans, nitrides, nitriles, sulfides, and strong reducing agents. Forms explosive mixture with nitromethane. Reacts violently with sodium chlorate.
tetrahydroborate. In the presence of chlorides can corrode stainless steel to form explosive hydrogen gas. Emits toxic and irritating fumes of oxides of phosphorus when heated to decomposition [Lewis, 3rd ed., 1993, p. 1029].

9442.2.10 Chemical Reactivity Worksheet: Aerosol Dispensers

**Chemical name** AEROSOL DISPENSERS  
**CAS number(s):** none  
**UNNA number(s):** 1950

**Synonyms:**  
AEROSOL DISPENSERS  
AEROSOLS  
DOT SPANISH  
AEROSOLES  
DOT FRENCH  
AÉROSOLS  
AEROSOLS, CONTENEDORES DE  
AEROSOLS, DISPENSATEURS D'

**General Description:**  
No description information is available.

**Special Hazards:**  
No rapid reaction with Air  
No rapid reaction with Water

**Reactive Groups assigned to this chemical:**  
• Insufficient Information for Classification

**Air and Water Reactions:**  
No air or water reactions noted.

**Chemical Profile:**  
Resultant reactivities depend on the exact nature of the mixtures. These materials include CFCs, ethylene oxide mixtures with CO2 and CFC, nitrous oxide and CO2. Some may burn, but none ignite.

9442.2.11 Chemical Reactivity Worksheet: Batteries, Wet, Filled With Acid

**Chemical name** BATTERIES, WET, FILLED WITH ACID  
**CAS number(s):** none  
**UNNA number(s):** 2794

**Synonyms:**  
BATTERIES, [WET, FILLED WITH ACID]  
BATTERIES, WET, FILLED WITH ACID  
BATTERY  
DOT SPANISH  
ACUMULADORES, ELÉCTRICOS, HÚMEDOS, DE ELÉCTROLITO LÍQUIDO ÁCIDO  
DOT FRENCH  
ACCUMULATEUR  
ACCUMULATEURS ÉLECTRIQUES, REMPLIS D'ÉLECTROLYTE LIQUIDE ACIDE
General Description:
Lead-acid batteries. Unreactive plastic containers holding lead electrodes and containing a fluid electrolyte that is an aqueous solution of sulfuric acid. The liquid is corrosive to metals and tissues (© AAR, 1999).

Special Hazards:
No rapid reaction with Air
No rapid reaction with Water

Reactive Groups assigned to this chemical:
• Acids, Inorganic Non-oxidizing

Air and Water Reactions:
The fluid is soluble in water with the evolution of heat.

Chemical Profile:
BATTERIES, [WET, FILLED WITH ACID] contain aqueous sulfuric acid. May continuously evolve hydrogen, a flammable gas. The fluid reacts with chemical bases (for example: amines and inorganic hydroxides) These reactions can generate dangerously large amounts of heat in small spaces. Dilution of the fluid with water may generate significant heat. The addition of water to the fluid can generates sufficient heat in the small region of mixing to cause some of the water to boil explosively and spatter the acidic fluid. The fluid reacts with active metals, including such structural metals as aluminum and iron, to release hydrogen, a flammable gas. Can catalyze (increase the rate of) chemical reactions. Can initiate the polymerization of certain classes of organic compounds. Reacts with cyanide compounds to release gaseous hydrogen cyanide. Generates flammable and/or toxic gases in contact with dithiocarbamates, isocyanates, mercaptans, nitriles, nitrides, sulfides, and strong reducing agents. Additional gas-generating reactions occur with sulfites, nitrites, thiosulfates (to give H2S and SO3), dithionite (SO2), and even carbonates: the carbon dioxide gas from the last is nontoxic but the heat and spattering from a rapid reaction can be troublesome.

9442.2.12 Chemical Reactivity Worksheet: Paint

Chemical name PAINT
CAS number(s): none UNNA number(s): 1263

Synonyms:
PAINT

General Description:
A liquid with a petroleum-like odor. Consists of a drying oil (such as linseed oil, which contains mixed glycerides (esters) of linoleic, linolenic acids and other fatty acid), a pigment, a thinner (turpentine or mineral paint spirits), and a drier. Flash point below 141°F. Generally less dense than water and insoluble in water. Vapors generally heavier than air. Contact may irritate skin, eyes and mucous membranes (© AAR, 1999).

Special Hazards:
No rapid reaction with Air
No rapid reaction with Water

Reactive Groups assigned to this chemical:
• Hydrocarbons, Aliphatic Unsaturated
• Esters

Air and Water Reactions:
Chemical Profile:
PAINT may react vigorously with strong oxidizing agents. May react exothermically with reducing agents to release gaseous hydrogen.

9442.2.13 Chemical Compatibility Worksheet

Compatibility Hazards for the Following List of Reactants:
ETHYLENE OXIDE
CHLORINE
PHOSPHORIC ACID
AEROSOL DISPENSERS
BATTERIES, WET, FILLED WITH ACID
PAINT

Hazard Statements:
SECTION 1 - Hazard Summary for All Possible Pairings of Chemicals:
- Explosive when mixed with combustible material
- Heat generated from chemical reaction may initiate explosion
- May cause fire
- Contact with combustible material may cause fire
- Fire from exothermic reaction-ignition of products or reactants
- Heat generation by chemical reaction, may cause pressurization
- May cause violent polymerization, possibly with heat/toxic or flammable gas generation or with explosive reaction; causes pressurization
- Can become highly flammable in use; causes pressurization
- Contact with substance liberates toxic gas; causes pressurization

SECTION 2 - Hazard Statements for Each Possible Pairing of Chemicals:

ETHYLENE OXIDE mixed with CHLORINE
- May cause fire
- Heat generation by chemical reaction, may cause pressurization
- May cause violent polymerization, possibly with heat/toxic or flammable gas generation or with explosive reaction; causes pressurization
- Contact with substance liberates toxic gas; causes pressurization

ETHYLENE OXIDE mixed with PHOSPHORIC ACID
- May cause fire
- Heat generation by chemical reaction, may cause pressurization
- May cause violent polymerization, possibly with heat/toxic or flammable gas generation or with explosive reaction; causes pressurization

ETHYLENE OXIDE mixed with AEROSOL DISPENSERS
- May be hazardous but unknown

ETHYLENE OXIDE mixed with BATTERIES, WET, FILLED WITH ACID
- May cause fire
- Heat generation by chemical reaction, may cause pressurization
- May cause violent polymerization, possibly with heat/toxic or flammable gas generation or with explosive reaction; causes pressurization
ETHYLENE OXIDE mixed with PAINT
- No reaction expected

CHLORINE mixed with PHOSPHORIC ACID
- Heat generated from chemical reaction may initiate explosion
- Fire from exothermic reaction-ignition of products or reactants
- Heat generation by chemical reaction, may cause pressurization
- Can become highly flammable in use; causes pressurization
- Contact with substance liberates toxic gas; causes pressurization

CHLORINE mixed with AEROSOL DISPENSERS
- May be hazardous but unknown

CHLORINE mixed with BATTERIES, WET, FILLED WITH ACID
- Heat generated from chemical reaction may initiate explosion
- Fire from exothermic reaction-ignition of products or reactants
- Heat generation by chemical reaction, may cause pressurization
- Can become highly flammable in use; causes pressurization
- Contact with substance liberates toxic gas; causes pressurization

CHLORINE mixed with PAINT
- Explosive when mixed with combustible material
- Heat generated from chemical reaction may initiate explosion
- May cause fire
- Contact with combustible material may cause fire
- Fire from exothermic reaction-ignition of products or reactants
- Heat generation by chemical reaction, may cause pressurization

PHOSPHORIC ACID mixed with AEROSOL DISPENSERS
- May be hazardous but unknown

PHOSPHORIC ACID mixed with BATTERIES, WET, FILLED WITH ACID
- No reaction expected

PHOSPHORIC ACID mixed with PAINT
- Heat generation by chemical reaction, may cause pressurization

AEROSOL DISPENSERS mixed with BATTERIES, WET, FILLED WITH ACID
- May be hazardous but unknown

AEROSOL DISPENSERS mixed with PAINT
- May be hazardous but unknown

BATTERIES, WET, FILLED WITH ACID mixed with PAINT
- Heat generation by chemical reaction, may cause pressurization

SECTION 3 - Special Hazards of Each Chemical:

ETHYLENE OXIDE
- Highly Flammable
- Polymerizable
CHLORINE
- Strong Oxidizing Agent
- Water-Reactive

PHOSPHORIC ACID
- No special hazards for this chemical

AEROSOL DISPENSERS
- No special hazards for this chemical

BATTERIES, WET, FILLED WITH ACID
- No special hazards for this chemical

PAINT
- No special hazards for this chemical

### 9442.2.14 Chemical Compatibility Table

**Chemical Names**
- CHLORINE
- PHOSPHORIC ACID
- ETHYLENE OXIDE
- BATTERIES, WET, FILLED WITH ACID
- PAINT
- AEROSOL DISPENSERS

**Compatibility Chart**

<table>
<thead>
<tr>
<th></th>
<th>CHLORINE</th>
<th>PHOSPHORIC ACID</th>
<th>ETHYLENE OXIDE</th>
<th>BATTERIES</th>
<th>PAINT</th>
<th>AEROSOL DISPENSERS</th>
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</thead>
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<tr>
<td>CHLORINE</td>
<td>104,107</td>
<td>A9,B4,C1,D2,D3</td>
<td>B1,C1,D1,D3</td>
<td>A9,B4,C1,D2,D3</td>
<td>A8,A9,B1,B2,B4,C1</td>
<td>F</td>
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<tr>
<td>PHOSPHORIC ACID</td>
<td>A9,B4,C1,D2,D3</td>
<td>-------</td>
<td>B1,C1,D1</td>
<td>No reaction</td>
<td>C1</td>
<td>F</td>
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<tr>
<td>ETHYLENE OXIDE</td>
<td>B1,C1,D1,D3</td>
<td>B1,C1,D1</td>
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<td>B1,C1,D1</td>
<td>No reaction</td>
<td>F</td>
</tr>
<tr>
<td>BATTERIES</td>
<td>A9,B4,C1,D2,D3</td>
<td>No reaction</td>
<td>B1,C1,D1</td>
<td>---------</td>
<td>C1</td>
<td>F</td>
</tr>
<tr>
<td>PAINT</td>
<td>A8,A9,B1,B2,B4,C1</td>
<td>C1</td>
<td>No reaction</td>
<td>C1</td>
<td>---------</td>
<td>F</td>
</tr>
<tr>
<td>AEROSOL DISPENSERS</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>---------</td>
</tr>
</tbody>
</table>

**Hazard Statements**

- A8 - Explosive when mixed with combustible material
- A9 - Heat generated from chemical reaction may initiate explosion
- B1 - May cause fire
- B2 - Contact with combustible material may cause fire
- B4 - Fire from exothermic reaction-ignition of products or reactants
- C1 - Heat generation by chemical reaction, may cause pressurization
D1 - May cause violent polymerization, possibly with heat/toxic or flammable gas generation or with explosive reaction; causes pressurization
D2 - Can become highly flammable in use; causes pressurization
D3 - Contact with substance liberates toxic gas; causes pressurization
F - May be hazardous but unknown
101 - Highly Flammable
103 - Polymerizable
104 - Strong Oxidizing Agent
107 - Water-Reactive

9442.2.15 Detailed ALOHA Output

![Text Summary

ALOHA results for chlorine release]
ALOHA results for ethylene oxide release

9442.3 Facility/Pipeline Scenario – Sulfur Dioxide Release From a Shoreline Storage Tank

1. Scenario
As a result of damage from a September tropical storm, a valve was dislodged from a storage tank of sulfur dioxide located on the Houssin General Chemicals facility, (30° 20’ 27” N, 81° 37’ 39” W). The tank holds 10,000 lbs. The rate of release was estimated at about 161 lb/min with a total release of about 9,470 lbs. There is a football game in progress with an estimated stadium crowd of 73,000. There are an additional 4,000 outside the stadium plus a residential population to total 200,000 people potentially affected.

Weather on scene: winds 3 mph from NNE, partly cloudy, air temp 85°F, Humidity 50%, St. Johns River flowing at 5 knots, incoming tide.

2. Primary Concerns
The primary concern is human health hazard due to exposure to SO₂. Considering the solubility of sulfur dioxide (10% at 75 F) the fraction of the gas dissolving in water would not be significant. Most of it would disperse as heavy gas, dissipating over distance. Emergency responders should use Level A and B PPE.

3. Public Health Considerations
The odor threshold for sulfur dioxide ranges from 0.3 to 5 ppm, with 3 ppm given as the odor threshold value in several resources (Chris, AAR). The ERPG 2 for SO₂ is 3 ppm. It seems, therefore, that people would detect the odor at concentration in which SO₂ would be harmful to them. To most people exposure to 3 ppm would cause
transient, relatively mild symptoms, especially if exposure has not been prolonged or extensive. Some people such as asthmatics and persons with respiratory diseases, and the very young and old, may suffer pronounced health effects, such as onset of asthma or other respiratory difficulties. Studies exposing healthy and asthmatic individuals to low levels of sulfur dioxide suggested that as a rule of thumb, asthmatics are ten times as sensitive to sulfur dioxide as non-asthmatics, healthy individuals. Exposure of 3 ppm, the odor threshold, even for short durations, may cause significant health effects to these individuals.

Considering this, it would be prudent to minimize people exposure to sulfur dioxide in whatever way best addresses the situation: Evacuation, shelter in place, and voluntary relocation of sensitive population. It is also recommended to inform and advise the public by means of a public advisory, and to ensure that public health entities (e.g., county health officer, local health officials) are involved in the response and provided all the assistance and information they need.

4. Determination of the Hazardous Products

a. Health and Safety Concerns

• Sulfur Dioxide

Sulfur Dioxide, a gas at room temperature, is a severe irritant to the respiratory tract, and to a lesser degree, to the eyes and skin. There is a significant variation in individual susceptibility to SO₂. The very young and old, and persons with respiratory diseases are most affected. Asthmatics sensitivity to SO₂ has been found to be approximately ten times higher than non-asthmatics.

In general, low concentrations of SO₂ would result in respiratory tract irritation and acidosis of the blood. Moderate concentrations may result in pulmonary edema, a potentially lethal condition, while high concentration may be rapidly lethal due to reflexive constriction of the respiratory tract, and suffocation. Other studies suggest that acute exposure to 5 ppm of SO₂ caused dryness of nose and throat, and some resistance to air flow to the lungs, which got worse at increasing concentrations. Sneezing, cough, and eye irritation occurred at 10 ppm. Spasms of the respiratory tract occur at 20 ppm, and at 50-ppm exposure to SO₂ results in spasm of the bronchus (air passageway to the lungs) but no injury in less than 30 minutes of exposure. Exposure to SO₂ at 1000 ppm and above caused death in 10 minutes to several hours due to respiratory depression. The onset of pulmonary edema as a result of exposure to sulfur dioxide may be delayed. All persons exposed to this agent are strongly advised to seek medical attention.

Sulfur dioxide is heavier than air, and may accumulate in lower areas, under docks etc., where its concentration can remain high for some time, because of poor ventilation in these areas.

Level of concern: Sulfur Dioxide

IDLH: 100 ppm (NIOSH, 1997)
TLV TWA: 2 ppm Not Classifiable As A Human Carcinogen (©ACGIH, 2001)
TLV STEL: 5 ppm Not Classifiable As A Human Carcinogen (©ACGIH, 2001)
ERPG1: 0.3 ppm (AIHA, 2001)
ERPG2: 3 ppm (AIHA, 2001)
ERPG3: 15 ppm (AIHA, 2001)
Odor threshold: 3 ppm (Chris, ARR)

• Sulfuric Acid

Sulfuric acid has a low vapor pressure, but a large spill may generate enough vapors to cause harm. Inhalation of sulfuric acid vapors may cause severe irritation to the respiratory tract, shortness of breath, chest tightness, sneezing and coughing. Contact of sulfuric acid with the lungs may cause pneumonitis and pulmonary edema (accumulation of fluids in the lungs), which is difficult to treat, and may be fatal. People with respiratory diseases are more susceptible to exposure to sulfuric acid, and may develop breathing difficulties at concentrations much below the
occupational standards.

Sulfuric acid is a severe eye irritant, and may cause total blindness if allowed to come into extensive contact with the eyes. Sulfuric acid is an extremely potent skin corrosive. Skin contact may cause third degree burns and necrosis.

Sulfuric acid is heavier than water and would sink while dissolving in water. If it spills directly into the water it would create less inhalation hazard to people - there would be less airborne acid vapors. However, a plume of concentrated sulfuric acid in the water poses a severe hazard to divers and swimmers in that vicinity.

**Level of concern: Sulfuric Acid**

- IDLH: 15 mg/m³ (NIOSH, 1997)
- TLV TWA: 1 mg/m³ Suspected Human Carcinogen. (©ACGIH, 2001)
- TLV STEL: 3 mg/m³ Suspected Human Carcinogen. (©ACGIH, 2001)
- ERPG1: 2 mg/m³ (AIHA, 2001)
- ERPG2: 10 mg/m³ (AIHA, 2001)
- ERPG3: 30 mg/m³ (AIHA, 2001)

**b. Before Entry**

- Establish an exclusion zone, control the site.
- Prepare the entry and back up teams, making sure that they have the appropriate PPE and the instruments needed. Prepare a brief site safety plan with essential information ready, including what hospital will accept contaminated injured persons.
- Establish zones, prepare decon. Contributing factors in determining zones size include wind, weather conditions, and suspected concentrations and amounts of sulfuric acid and sulfur dioxide.
- Call NOAA HAZMAT Scientific Support Coordinator (SSC) for support.

**c. Monitoring**

Sulfur dioxide may be monitored by several means: The quickest is a direct reading instrument equipped with an electro chemical sensor to measure SO₂. Another option is to use colorimetric tubes, or Drager™ chip measurement system. Diffusion badges or pumps and sampling tubes are not direct readings methods. They provide accurate readings, but require lab analysis.

Concentration of sulfuric acid vapors may be approximated by colorimetric tubes. The measurement is cumbersome, requiring 100 strokes. Sulfuric acid concentration in water may be ascertained by pH meters, from the simple pH paper to electronic meters.

**5. Chemistry of the products involved**

\[
\text{SO}_2 + \text{H}_2\text{O} \rightarrow \text{H}_2\text{SO}_3 \rightarrow \text{H}_2\text{SO}_4
\]

Sulfur dioxide is an acidic gas that reacts with water to form sulfurous acid. Sulfurous acid is rapidly oxidized in water to form sulfuric acid, which is a strong acid and can cause pH to drop to less than 2. The rapid formation of sulfuric acid on moist surfaces (e.g., skin, lungs, eyes) is the primary hazard mechanism for SO₂. Although the conversion to sulfuric acid in air is a fairly slow process, the presence of water droplets or aerosols will greatly accelerate the conversion rate. Runoff during a rainstorm, for example, can be expected to be quite acidic. Aqueous solutions of sulfurous acid can off-gas SO₂ while for solutions of sulfuric acid the principal air hazard is aerosols or spray from the acidic solution.

Note that *in situ* formation of sulfuric acid from dissolved SO₂ will not produce a dense concentrated sulfuric acid solution that sinks in water, but rather a more dilute solution that will disperse readily.
As an acidic gas, SO₂ will react readily (and exothermically) with basic chemical species such as hydroxides, carbonates, ammonia, amines, amides and metal oxides.

Ordinarily, sulfur dioxide is a mild reducing agent. That is, in the environment one can expect it to oxidize as described above. As such, it is incompatible with oxidizers (e.g., chlorine, fluorine, peroxides). When heated in the presence of reduced material (e.g., aluminum, iron, manganese) it can act as an oxidizing agent and enhance combustion of these materials.

Sulfur dioxide boils at 14°F (-10°C) and is shipped under pressure as a compressed liquefied gas. If exposed to heat, internal pressures can build rapidly and cause a release of material or container failure.

6. Potential Air Impacts

In this scenario, sulfur dioxide leaks from a storage tank through a dislodged valve, escaping at an estimated rate of about 160 pounds per minute.

Sulfur dioxide is a gas under ambient conditions, typically stored as a compressed liquid. When released from pressurized containment, most of the released sulfur dioxide would enter the atmosphere as a gas, and would form a toxic cloud. A small proportion of the released sulfur dioxide would be expected to rain out onto nearby terrain or water bodies, particularly the St. Johns River in this scenario. However, the sulfur dioxide cloud poses the main human health and safety threat in this scenario.

Sulfur dioxide’s main hazard to human health and safety is toxicity; it is not flammable or explosive. The Emergency Response Planning Guideline-2 (ERPG-2) represents the concentration above which members of the general public might find their ability to escape impaired or might experience serious or irreversible health effects. When the ERPG-2 for sulfur dioxide, 3 ppm, is used as the level of concern, ALOHA predicts that, under the conditions of this scenario, this concentration could be exceeded as far as 2 miles downwind of the leaking tank. The footprint in Figure 1 represents the area predicted to be affected, assuming that the wind speed and direction don’t change from those shown in the scenario. However, in this scenario, wind speed is low and atmospheric conditions are relatively unstable, making it very likely that the wind would switch direction and/or speed. This likelihood of wind changes is illustrated by the wind uncertainty lines in Figure 1, which form a circle around the source point to indicate that the wind could switch to blow from any direction.

Caveats:
• Sulfur dioxide is a heavy gas; responders should be alert to the possibility of sulfur dioxide vapors collecting in low areas.
• The direction of cloud travel could switch to any direction.

Assumptions (beyond those stated in the scenario description):
• Midafternoon release time.
ALOHA results for Jacksonville scenario no. 1. The footprint, which is about 2 miles in length, represents the area where predicted sulfur dioxide concentrations could exceed the ERPG-2 (3 ppm), as long as wind speed and direction remain constant. The wind uncertainty lines, which form a circle around the release point, indicate that under the weather conditions for this scenario, the wind could switch to blow the gas cloud in any direction.

7. Potential Ecological Effects

The release of this material into the St. Johns River has resulted in the formation of a sulfuric acid plume. This will be acutely toxic to most aquatic organisms it contacts, and for those not killed outright, impairment due to the sharp decrease in pH can be expected. Monitoring of this situation should be undertaken downstream of the release with pH meters. Environmental chemists should be consulted to ascertain the feasibility of pH modification as a remedial measure.

Sulfuric acid is harmful to aquatic life in very low concentrations. It may also be dangerous if it enters water intakes. The aquatic toxicity for bluegill in fresh water was 24.5 ppm/24 hr, which was lethal.

The toxicity of sulfuric acid to aquatic organisms is related to the effects on the pH of the medium. EC50 (24-48 hr) values towards different species of crustaceans (Daphnia magna and Crangon crangon) have been determined in the range from 43 to 80 mg/l, whereas LC50 (24-96 hr) values towards fish (Gambusia affinis, Lepomis machrochirus,
Danio rerio) are in the range from 42 to 82 mg/l. No data were found on the toxicity of sulfuric acid towards algae.

For crustaceans and fish the LC50 is reached when pH decreases to 3.5.

Releases of sulfuric acid to surface waters and soils will be neutralized to an extent due to the buffering capacities of both systems. The extent of these reactions will depend on the characteristics of the specific environment.

9442.3.1 Chemical Reactivity Worksheet: Sulfur Dioxide

Refer to Section 9442.1.7.

9442.3.2 Detailed ALOHA Output

9442.4 Over-Ground Transportation, Truck/Train Scenario – Chlorine Release From Train Derailment

1. Scenario
At about 1500, 29 July, due to rail expansion from the heat, a train derails from the rail bridge near Hwy 17, into the Ortega river (30° 16’ 21” N, 81° 42’ 58” W). A valve on railcar tank containing 341,000 lbs (30,000 gals) of chlorine is damaged (1” opening). A total of 52,059 lbs is released over 1 hour. The derailment also releases about
6,000 gals of diesel into the water. The resulting chlorine plume threatens an area of dense population, a mall and the highway and light river traffic.

Weather on scene: winds 3 mph at 45 degrees, air temp is 95° F, incoming tide with high tide at 1830.

2. **Primary Concerns**

A chlorine release of this magnitude may pose a severe and acute human health risk. The diesel spill into the river may pose a risk to the environment, as well as some human health and safety risk. Chlorine may react with diesel fuel to form a flammable or explosive mixture. Need level A PPE for first responders. Perimeter control at level B.

3. **Determination of the Hazardous Products**

   a. **Health and Safety Concerns**

   Chlorine gas is a strong irritant, and may cause severe damage to the eyes and respiratory system. The main symptoms are burning and teary eyes, coughing, choking, dizziness and burning sensation of the respiratory tract. Onset of breathing difficulty may be immediate or delayed. Exposure may cause pneumonia, tracheobronchitis, and pulmonary edema. **Note:** Onset of pulmonary edema may be delayed, and may occur even after exposure to relatively low concentrations of chlorine. Medical attention must be given to any person exposed. High concentration of chlorine may cause skin burning, inflammation, and blister formation.

   Studies on acute toxic levels of chlorine suggest that the extent of injury depends on the concentration and duration of exposure as well as the water content of the tissue involved and the presence of underlying cardiopulmonary disease. The estimated clinical effects are as follows: 1-3 ppm: Mild mucous membrane irritation; 5-15 ppm: Moderate irritation of upper respiratory tract; 30 ppm: Immediate chest pain, vomiting, dyspnea, cough; 40-60 ppm: Toxic pneumonitis and pulmonary edema; 430 ppm: Lethal over 30 min; 1000 ppm: Fatal within a few minutes.

   Chlorine is heavier than air and tends to "hug the ground" as it disperses. Therefore its downwind concentration would not decrease as rapidly as a gas that is lighter than air. It will also tend to sink to lower areas and may accumulate under piers and docks, in sewer lines and other low areas. In semi-confined space it may dilute only slowly, remaining at high concentrations for some time. This point should be remembered before entry into confined space and when sampling for chlorine.

   Chlorine is not combustible but, because it is a potent oxidizer, would support combustion of other materials such as the spilled diesel. Combustion of other materials with chlorine is likely to generate toxic gases. Chlorine containers may rupture violently due to over pressurization under heat. The emergency valves on chlorine cylinders may be unseated and chlorine released when the cylinders are exposed to heat from fire.

   Chlorine is very reactive. It will form explosive mixtures with hydrogen, acetylene, ammonia, fuel gas, and powdered metals. It will combine with water to form the potent and corrosive hydrochloric acid.

   **Level of concern: Chlorine**

   IDLH: 10 ppm
   TLV: 8 hr TWA-0.5 ppm, 15 min STEL-1.5 ppm
   PEL: 8 hr TWA-0.5 ppm, STEL-1 ppm
   ERPG-1: 1 ppm
   ERPG-2: 3 ppm
   ERPG-3: 20 ppm
   Odor Threshold: 0.02-3.5 ppm

   b. **Before Entry**

   • Establish an exclusion zone, control the site.
• Prepare the entry and back up teams, making sure that they have the appropriate PPE and the instruments needed. Prepare a brief site safety plan with essential information ready, including what hospital will accept contaminated injured persons.
• Establish zones, prepare decon. Contributing factors in determining zones size include wind, weather conditions, and suspected concentrations and amounts of chlorine.
• Call NOAA HAZMAT Scientific Support Coordinator (SSC) for support.

c. Monitoring
Two methods are commonly used to get quick, real-time air samples for chlorine

Colorimetric tubes (e.g. Drager, Sensidyne) can readily indicate the air concentration of chlorine, from a fraction of a ppm to hundreds of ppm. They are not very accurate (± 30%) but are simple, readily available and easy to use.

Electronic gas monitors have either a cell or chip that detects chlorine in the air. Most display the concentrations digitally, and sound an alarm if a predetermined level of concern is exceeded. These monitors are simple to use, portable and small (the size of a pocket book), and provide immediate readings.

4. Chemistry of the products involved

• Chlorine
Chlorine is a gas at normal temperatures and pressures. It is a strong oxidizing agent. Like other oxidizers, chlorine can cause ignition of items that are ordinarily thought to be incombustible. For example, chlorine can cause rapid, exothermic oxidation of metals such as iron, copper and aluminum. If these items are in forms with high surface areas, such as shavings or powders, the oxidation can be explosive. Chlorine can accelerate the combustion of flammable materials such as hydrocarbons. As an oxidizer, chlorine is also incompatible with reducing agents such as hydrides, sulfites (including SO2), and nitrites and can cause an explosion when mixed with these materials.

Chlorine is a heavy gas with a green color at high concentrations. It is transported as a compressed liquid. If fire is present, hydrochloric acid (HCl) fumes will be evolved.

• Diesel Fuel
Diesel Fuel is a relatively non-toxic mixture of mostly saturated hydrocarbons, although some may contain up to several percent polycyclic aromatics (PAH) of various types. Atmospheres that present inhalation hazards are unlikely except in enclosed spaces. The material is difficult to ignite under ordinary circumstances, but may burn if involved in a significant fire. In the presence of oxidizers (e.g., oxygen, chlorine, peroxides) it will be more flammable than expected and may be easily ignited. In the presence of high concentrations of strong oxidizers it may ignite spontaneously.

5. Potential Air Impacts

In this scenario, chlorine escapes through a damaged 1-inch valve on a railcar. An estimated 52,000 pounds is released within an hour.

Chlorine’s main hazard to human health and safety is toxicity. The Emergency Response Planning Guideline-2 (ERPG-2) represents the concentration above which members of the general public might find their ability to escape impaired or might experience serious or irreversible health effects. When the ERPG-2 for chlorine, 3 ppm, is used as the level of concern, ALOHA predicts that this concentration could be exceeded for as far as 4.4 miles downwind of the leaking tank. The area that could potentially be affected, assuming that the wind speed and direction don’t change from those shown in the scenario, is shown in Figure 2. However, in this scenario, wind speed is low and atmospheric conditions are relatively unstable, making it very likely that the wind would switch direction and/or
speed. This likelihood of wind changes is illustrated by the wind uncertainty lines in Figure 1, which form a circle around the source point to indicate that the wind could switch to blow from any direction.

Caveats:
• Chlorine is a heavy gas; responders should be alert to the possibility of chlorine vapors collecting in low areas.
• The direction of cloud travel could switch to any direction.

Assumptions (beyond those stated in the scenario description):
• Partly cloudy weather conditions.

ALOHA results for Jacksonville scenario no. 2. The footprint, which is about 4.4 miles in length, represents the area where predicted chlorine concentrations could exceed ERPG-2 (3 ppm), as long as wind speed and direction remain constant. The wind uncertainty lines, which form a circle around the release point, indicate that under the weather conditions for this scenario, the wind could switch to blow the gas cloud in any direction.

6. Potential Ecological Effects
In this incident, the chlorine component of the cargo constitutes the greatest risk and concern due to the potential human health impact of a catastrophic release. As such, environmental impacts of the chlorine release would be considered to be minimal in the context of potential human impacts. Chlorine is slightly soluble in water, forming an acidic oxidizing solution. Oxidant will be harmful or fatal to marine life for a brief period of time, but material is reduced to chloride relatively quickly unless pH is high (e.g., >9). Solutions will off-gas chlorine, especially at low pH. Solution will remain acidic, but will disperse readily in water.

The 6,000 gals of diesel that spilled into the Ortega River will likely result in a localized fish and invertebrate kill immediately downstream of the release, but evaporation of the fuel and dilution of water-soluble compounds by the river will minimize larger-scale effects to the environment. Vegetation along the riverbank immediately in the vicinity of the rail accident and spill are likely to show signs of chlorosis (yellowing of leaves with potential plant death). Time of year and reproductive status of the affected plants would determine long-term impacts.

9442.4.1 Chemical Profile: Chlorine
Refer to Section 9442.1.2.

9442.4.2 Chemical Profile: Fuel Oil, Diesel
Refer to Section 9442.1.4.

9442.4.3 Chemical Reactivity Worksheet: Chlorine
Refer to Section 9442.1.6

9442.4.4 Chemical Reactivity Worksheet: Fuel Oil, Diesel
Refer to Section 9442.1.8.

9442.4.5 Chemical Compatibility Worksheet

Compatibility Hazards for the Following List of Reactants:
CHLORINE
FUEL OIL, [DIESEL]

Hazard Statements:

Hazard Summary for All Possible Pairings of Chemicals
- Heat generated from chemical reaction may initiate explosion
- May cause fire
- Contact with combustible material may cause fire
- Fire from exothermic reaction-ignition of products or reactants
- Heat generation by chemical reaction, may cause pressurization

Special Hazards of Each Chemical
CHLORINE
- Strong Oxidizing Agent
- Water-Reactive

FUEL OIL, [DIESEL]
- No special hazards for this chemical

9442.4.6 Chemical Compatibility Table
Chemical Names
FUEL OIL, [DIESEL]
CHLORINE
HYPOCHLORITE SOLUTION, [CONTAINING > 7% AVAILABLE CHLORINE BY WEIGHT]

COMPATIBILITY CHART

<table>
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<tr>
<th></th>
<th>FUEL OIL, [DIESEL]</th>
<th>CHLORINE</th>
<th>HYPOCHLORITE SOLUTION</th>
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<tr>
<td>FUEL OIL, [DIESEL]</td>
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<td>B1,C1</td>
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<td>HYPOCHLORITE SOLUTION</td>
<td>B1,C1</td>
<td>A9,B2,B4</td>
<td>104,107</td>
</tr>
</tbody>
</table>

HAZARD STATEMENTS

A9 - Heat generated from chemical reaction may initiate explosion
B1 - May cause fire
B2 - Contact with combustible material may cause fire
B4 - Fire from exothermic reaction-ignition of products or reactants
C1 - Heat generation by chemical reaction, may cause pressurization
104 - Strong Oxidizing Agent
107 - Water-Reactive
9442.4.7 Detailed ALOHA Output

9442.4.7 Trajectory and Oil Fate Information

TRAJECTORY
Spill occurs at max flood with currents in the 1 -2 knot range from the NE. On scene winds: 3 mph at 45 degrees (NE).

The oil will enter the Ortega River and impact the shoreline between Fishing Creek and Butcher Penn Creek within 2 hours.

OIL FATE
Lighter refined products, such as diesel, typically have very high evaporation rates and do not tend to create persistent slicks. However, the terminology for refined products is not standardized, and, sometimes, heavier intermediate fuel oils are referred to as “marine diesel”. These heavier products are much less volatile than normal Fuel Oil no 2 and form a more persistent slick.

When spilled, the diesel spreads quickly into thin films often forming patches of rainbow and silver sheens. If the sheens reach the shoreline in a few hours, a slight staining, or greasy film-like bathtub ring (in the case of diesel) is common. These oils usually do not form a stable emulsion and, as a result, do not form a heavy or sticky residual to clean up.
It should be noted that lighter refined products do have a relatively high concentration of light aromatic compounds and tend to be more soluble and more toxic than heavier oils. Therefore these oils may not present an involved cleanup problem, however they can result in an initial toxic shock to biota and persist as a biological threat problem in low energy marine environments.

9442.5 Caustic Soda Spill Scenario – Barge Allision

1. Scenario
At about 0230, 1 April, a tank barge at the ICW and St Johns River confluence (30° 23’ 39”N, 81° 27’ 30” W) allided with a finger pier, damaging the starboard bow. The barge was carrying 1,000,000 gals of caustic soda (sodium hydroxide). The #1 starboard, #2 starboard and #1 center tanks and forward rake were damaged. The total amount lost is approximately 120000 gals from #1 starboard and #1 center tanks and 50,000-100,000 gals from #2 starboard tank.

Weather on scene: winds calm, 59° F, foggy with 100-200 yard visibility, no waves, max flood (8-10 knots) and river current 3 knots

2. Primary Concerns
A major release of sodium hydroxide may cause a significant environmental damage and pose a serious hazard to people coming in direct contact with the solution. Inhalation hazards, while present as mist in the air due to violent reaction with water, are not a major route of exposure. PPE: Rubber, natural rubber.

3. Determination of the Hazardous Products
   a. Health and Safety Concerns

   The major route of exposure to sodium hydroxide is via ingestion and skin/eye contact.

   On the skin, solutions of about 25 to 50% cause the sensation of irritation within about 3 minutes; with solutions of 4% this does not occur until after several hours. When skin contact occurs, there is not necessarily an immediate sensation of irritation or pain. If sodium hydroxide is not removed from the skin, severe burns with deep ulceration will occur; Exposure to the mist may cause multiple small burns, with temporary loss of hair.

   Sodium hydroxide is a severe eye irritant. Contact with the eye results in irritation, corneal burns, and in severe cases, permanent eye damage and blindness.

   Skin and eye contact may occur to responders or to the general public coming in contact with the solution. Prevent swimming, diving and potentially recreational boating and any other activity that may expose the public to the spilled solution.

   Inhalation of sodium hydroxide is a lesser route of exposure. The vapor pressure of the solution is low, minimizing the risk of the substance becoming airborne. When concentrated sodium hydroxide mixes with water, spattering and boiling may occur, sending sodium hydroxide aerosols into the air, and creating an inhalation hazard.

   Sodium hydroxide is heavier than water and would sink while diluting, further minimizing the possibility of inhalation hazard.

   Level of concern
   IDLH: 10 mg/m3 (NIOSH, 1997)
   TLV STEL: 2 mg/m3 Ceiling limit. (©ACGIH, 2001)
   ERPG1: 0.5 mg/m3 (AIHA, 2001)
   ERPG2: 5 mg/m3 (AIHA, 2001)
b. Monitoring
Use pH paper or pH instruments to measure the alkalinity of the water.

4. Chemistry of the products involved

Caustic Soda (sodium hydroxide) is a strong base. It is available as a pelleted solid, but is frequently handled as an aqueous solution because of the tendency of the solid to react with atmospheric water to form difficult to handle cakes. Solutions of 50% and 73% are common. The solutions are very corrosive (pH>12) and will corrode many common metals, including iron and aluminum. The specific gravity of the solution increases with concentration (e.g., 1.5 for 50% solution, 1.6 for 73% solution) and may be as high as 2 for very concentrated solutions. Even though the solubility is high, concentrated solutions will tend to sink and form layers or pockets that are surprisingly persistent; this tendency is more pronounced for systems with low energy and little turbulence. Solutions absorb carbon dioxide from the air and a white carbonate precipitate may appear as a crust on the solution or in waters into which the material is spilled. Dramatic increases in pH will be observed over areas where the solutions are spilled into the water. The mixing of concentrated sodium hydroxide solutions with water is exothermic and temperature increases will be significant if large quantities are spilled. Localized temperatures may be high enough to cause spattering. Aerosols or spray from the solution or contaminated water may be hazardous. The solutions will burn tissue.

Solutions are incompatible with acids and may catalyze polymerization, or other reactions when mixed with other chemicals.

5. Potential Air Impacts

Because the sodium hydroxide solution would sink into the water and then dissolve, no air hazard is predicted for this scenario. In the immediate vicinity of the release, there could be some hazard to responders from spray thrown up into the air as the caustic soda solution entered the water.

6. Potential Ecological Effects

Sodium hydroxide is a strong base. It is highly soluble in water and dissociates to sodium and hydroxide ions, with the effect of increasing pH and alkalinity. Na+ and OH- persist indefinitely in the environment with equilibrium between various forms of complexes and precipitates.

Sodium hydroxide is itself considered to be acutely toxic to aquatic organisms, with LC50 toxic concentrations for sensitive species in the 10-100 ppm range. EC50 values in the range 30-180 mg/l have been determined for crustaceans, while LC50 (96 hr) values for fish have been found in the range 45-125 mg/l, with rainbow trout (*Oncorhynchus mykiss*) being the most sensitive species. As the spilled material has a higher density than water, it will sink and immediate impacts to the environment may be difficult to gauge. Mortality to benthic (bottom) communities exposed to the undiluted release is likely with a downstream gradient commensurate with dilution.

The toxicity of sodium hydroxide to aquatic life will be influenced by the hardness and alkalinity of the receiving water. The estimate of high acute toxicity is based on the criterion for pH of water, which considers the pH of 9.0 the upper limit for healthy populations of aquatic life.

The most significant environmental effect of a large release of the material is likely to result from the drastic increase in pH. Addition of small quantities of such bases as sodium hydroxide will slightly raise the pH of water in aquatic ecosystems, but larger quantities could raise the pH for extended periods of time. Shifts of ambient pH higher than pH 10 may occur in this incident and cause widespread mortality of exposed plants and animals unable to tolerate such basic conditions. Monitoring of pH downstream of the allision would permit delineation of impact area and documentation of temporal changes. Chemists may be able to suggest remedial actions such as treatment
with acidic materials to mitigate the impact of the caustic soda.

9442.5.1 Chemical Profile: Caustic Soda

CAUSTIC SODA, SOLUTION refers to an aqueous solution of sodium hydroxide. Strongly basic. Reacts rapidly and exothermically with organic and inorganic acids, with organic and inorganic acid anhydrides, including oxides of nonmetals such as sulfur dioxide, sulfur trioxide, phosphorus trioxide, phosphorus pentoxide, and with organic and inorganic acid chlorides. May react explosively with maleic anhydride [MCA Case History 622 1960]. Attacks aluminum and zinc with evolution of hydrogen, a flammable gas. May initiate polymerization in polymerizable organic materials: a violent polymerization results if acetaldehyde contacts alkaline materials such as sodium hydroxide; an extremely violent polymerization results from contact of acrolein with alkaline materials such as sodium hydroxide [Chem. Safety Data Sheet SD-85 1961]. A violent explosion resulted when a quantity of pentol was accidentally brought in contact with a caustic cleaning solution chemically similar to aqueous sodium hydroxide [MCA Case History 363 1964]. Aqueous solutions of reducing sugars other than sucrose, when heated (above 84°C.), evolve toxic levels of carbon monoxide in the presence of alkalis or alkaline salts, such as sodium phosphate (also potassium hydroxide, sodium hydroxide, calcium hydroxide, etc.) [Bretherick 5th ed. 1995].

Properties
Auto Igtn Temp: Not flammable (USCG, 1999)
Melting Point: 605° F (NIOSH, 1997)
Vapor Pressure: 0 mm Hg (approx) (NIOSH, 1997)
Specific Gravity: 1.5 at 68° F (USCG, 1999)
Boiling Point: >266° F at 760 mm (USCG, 1999)
Molecular Weight: 40.0 (NIOSH, 1997)
IDLH: 10 mg/m3 (NIOSH, 1997)
TLV STEL: 2 mg/m3 Ceiling limit. (©ACGIH, 2001)
ERPG1: 0.5 mg/m3 (AIHA, 2001)
ERPG2: 5 mg/m3 (AIHA, 2001)
ERPG3: 50 mg/m3 (AIHA, 2001)
Water Solubility: 111% (NIOSH, 1997)

9442.5.2 Chemical Reactivity Worksheet

Chemical name: CAUSTIC SODA, SOLUTION [NaOH (aq)]
CAS number(s): 1310-73-2 UNNA number(s): 1824

Synonyms:
AETZNATRON
CAUSTIC SODA
CAUSTIC SODA SOLUTION
COLLO-TAPETTA
SODA, CAUSTIC
SODIUM HYDRATE
SODIUM HYDROXIDE (LYE)
SODIUM HYDROXIDE SOLUTION
WHITE CAUSTIC
DOT SPANISH
HIDRÓXIDO DE SODIO, EN SOLUCIÓN
DOT FRENCH
HYDROXYDE DE SODIUM, EN SOLUTION

ASCARITE
CAUSTIC SODA, SOLUTION
COLLO-GRILLREIN
LYE
SODA LYE
SODIUM HYDROXIDE
SODIUM HYDROXIDE, [LIQUID]
SODIUM HYDROXIDE, SOLUTION
SOSA CAÚSTICA, EN SOLUCIÓN
SOUDA CAUSTIQUE, EN SOLUTION
**General Description:**
A dark, thick, liquid more dense than water. Contact may severely irritate skin, eyes, and mucous membranes. Toxic by ingestion and corrosive to metals and tissue. Density 13 lb / gal (© AAR, 1999).

**Special Hazards:**
No rapid reaction with Air
No rapid reaction with Water

**Reactive Groups assigned to this chemical:**
• Bases

**Air and Water Reactions:**
Slowly absorbs carbon dioxide from the air to give solid products as crusts or precipitates. Water soluble. Dilution with water liberates heat, possibly enough to cause local boiling and spattering.

**Chemical Profile:**
CAUSTIC SODA, SOLUTION refers to an aqueous solution of sodium hydroxide. Strongly basic. Reacts rapidly and exothermically with organic and inorganic acids, with organic and inorganic acid anhydrides, including oxides of nonmetals such as sulfur dioxide, sulfur trioxide, phosphorus trioxide, phosphorus pentaoxide, and with organic and inorganic acid chlorides. May react explosively with maleic anhydride [MCA Case History 622 1960]. Attacks aluminum and zinc with evolution of hydrogen, a flammable gas. May initiate polymerization in polymerizable organic materials: a violent polymerization results if acetaldehyde contacts alkaline materials such as sodium hydroxide; an extremely violent polymerization results from contact of acrolein with alkaline materials such as sodium hydroxide [Chem. Safety Data Sheet SD-85 1961]. A violent explosion resulted when a quantity of pentol was accidentally brought in contact with a caustic cleaning solution chemically similar to aqueous sodium hydroxide [MCA Case History 363 1964]. Aqueous solutions of reducing sugars other than sucrose, when heated (above 84°C.), evolve toxic levels of carbon monoxide in the presence of alkalis or alkaline salts, such as sodium phosphate (also potassium hydroxide, sodium hydroxide, calcium hydroxide, etc.) [Bretherick 5th ed. 1995].

**9443 Marine Firefighting Scenarios**
Refer to Annex 8000 of this plan.

**9444 Salvage Scenarios**
Refer to Section 4770 of this plan.

**9445 Weapons of Mass Destruction Scenarios**
Refer to Appendix 9800 of this plan.

**9450 Response Strategies for Group V Persistent Oils**
This section will allow any company responsible for generating a Group V Spill Strategies Plan to reference the ACP (and supporting documents) for their Group V plan, if they so desired.
This document is to be a listing of the tools of heavy oil spill response ONLY, and that in no shape or form was this document to be construed as a set means of response to any spill. Every spill situation is unique and should be treated as such. These strategies are merely tools that have been tried in the past, with varying degrees of success. The ACP and this document are resource reference guides. These strategies will offer the responders a list of alternatives for consideration. It will UNEQUIVOCALLY be the responsibility of the Responsible Party, in conjunction with the Unified Command, to make the decisions regarding which tools to utilize in any spill response. The responsible Party will be able to reference this document to cover contingencies for a Group V Persistent Oil Spill, but will not be bound to respond in a set manner to any spill. To the extent that the Responsible Party shows due diligence and with the opportunity to consider every available option, then the response to a spill will continue to be at the company’s discretion.

This document uses matrices for quick reference guides on both the Sampling Protocol and the Response Methodology. The environment has been generally divided into three types of location for spill response operations.

- Rivers / Canals
- Estuarine
- Open Bays / Ocean

The utilization of the matrices in conjunction with the Streamlined Evaluation Process will enable the response effort to be focused more efficiently. The streamlined Evaluation Process encompasses several diverse components. These components, with Safety Considerations obviously paramount, fall under the general headings of:

- Understanding the Product
- Understanding the Environment
- Utilizing the Unified Command Structure
- Clean up Criteria
- Technical Feasibility
- Occupational Safety & Hazard Awareness Divers & Non-Traditional Response Personnel
  - Availability of Specialized Equipment and Skilled Personnel
  - Waste Disposal

The consideration of all of these items, in conjunction with the utilization of the locale specific matrices, should help define the goals for each specific spill situation. It may be, in many situations, that more damage would be done to the environment by recovery operations than just leaving the product alone to degrade naturally (Unenhanced Bioremediation). The process of Integrated Bathometric Surveys may be utilized in certain situations (such as particularly sensitive areas of the environment, or if the spilled product is hazardous) to define where extensive sampling would be appropriate. Contractors that are familiar with this particular type of survey should be employed to achieve the optimum results. In most cases, it appears that the low-tech options are much more efficient, productive and preferable to the highly sophisticated methods that may be appropriate for only a few situations. These highly technical methods are for the most part, high-cost, low-efficiency methods of response. It is desirable that responders have a range of options available to them to choose from, and this document is a listing of the current tools available. After the document is complete, the Group V Committee intends to reconvene once per year to incorporate any new technology or advancement in response methodology and assess the validity of the document.

Streamlined Evaluation Process

UNDERSTAND PRODUCT
1. Safety Considerations
2. Product Phase
   a) Solid
   b) Liquid – Pumpable
   c) Liquid – Non-Pumpable
3. Product Density
   a) Dual Phase?
   b) Multiple Density
   c) Suspended in Water Column
   d) On the Bottom
4. Weathering Considerations
5. Behavior of Product in Water

UNDERSTAND ENVIRONMENT
1. Water Depth
   a) Shallow
   b) Medium
   c) Deep
   d) Bottom Bathymetry
2. Water Clarity
   a) Clear
   b) Mild Turbidity
   c) Turbid
3. Bottom Types
   a) Sand
   b) Silt
   c) Hard
   d) Obstructions
   e) Vegetation
4. Current Effects
   a) Movement of Product
   b) Operational Impact
5. Traffic Considerations
   a) Operational
   b) Impact on Commerce
   c) Bottom Disturbance
6. Weather Considerations

UNIFIED COMMAND STRUCTURE
1. Coordination and Cooperation of Personnel and Agencies Involved in the Decision Making Process

CLEAN UP CRITERIA
1. Quantity of Product Spilled
2. Persistence of Product
3. Location
   a) Environmentally Sensitive
   b) Economically Sensitive
   c) Culturally Sensitive
4. Recoverability
5. Impact of Spill
   a) Short Term
   b) Long Term
6. Collateral Damage Caused by Continuation of Clean Up How Clean is Clean?

TECHNICAL FEASIBILITY
(See Environmental Specific Matrices)
OCCUPATIONAL SAFETY AND HAZZARD AWARENESS FOR DIVERS AND NON-TRADITIONAL
RESPONSE PERSONNEL

1. Product Hazards
2. Environmental Hazards
3. Integration of Emergency Procedures for Response Personnel
4. Integration of Operational Procedures

AVAILABILITY OF SPECIALIZED EQUIPMENT AND PERSONNEL
1. Mobilization and Transit Times
2. Operational Constraints
   a) Diver Work Hours
   b) Night Operations
   c) Support Platform / Crew Requirements

WASTE DISPOSAL
1. Waste Water Generated
   a) Emergency Decant Authorization
      i) Location
      ii) Product
      iii) By-Product
2. Dredged Material
   a) Recovered
3. Storage
   a) Temporary On-Site
   b) Intermediate Off-Site
4. Segregation of Waste Streams
5. Final Disposal

**SEE WASTE DISPOSAL SECTION OF AREA CONTINGENCY PLAN**

LOGISTICAL AND OPERATIONAL CONSIDERATIONS FOR LAPIO SPILL RESPONSE

1. System Components
2. Logistical Needs
   a) Platform (minimum size for equipment)
   b) Electrical (self-contained?)
   c) Winch / Davit
   d) Man-power (including maintenance)
   e) Set-up time
   f) Decon (repeated use)
3. Special Services
   a) Photo Development
   b) Interpretation
   c) Computer / Software
   d) Resolution of Detail
4. Area Coverage per Unit Time
   a) Point, Swath Width
   b) Beginning / Ending Locations
5. Environmental Considerations
   a) Visibility (air / water)
   b) Current Speed
c) Tidal Ebb and Flow

d) Wave Action

e) Depth of Water

f) Weather

g) False Positives

6. Availability

a) Number of Units

b) Local of Remote Accessibility

7. Reliability

a) Standard Acceptability of Performance

b) New Technology

8. Other Considerations

SAMPLING DETECTION METHODS

Aircraft Visual
Air Craft with Camera
Diaper / Snare Drops
Diver
Diver Operating in Same Area as ROV
Diver with Camera
Dragnet
Flourometer
Grab Sampler
Photo Bathymetry
ROV with Camera
Side Scan Sonar
Sonar
<table>
<thead>
<tr>
<th>Method</th>
<th>Data Turn Around</th>
<th>Coverage Per Unit</th>
<th>Logistical Needs</th>
<th>Probability of False Positive</th>
<th>Environmental Impact</th>
<th>Cost</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sonar</td>
<td>D</td>
<td>M</td>
<td>H</td>
<td>H</td>
<td>L</td>
<td>M</td>
<td>Detection of Bottom And in Water Column</td>
<td>Detects Oil Directly Under Vessel Only</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Demonstrated Capability</td>
<td>Slow Ground Truthing, Detection Runs &amp; Interpretation</td>
</tr>
<tr>
<td>Diver w/Camera</td>
<td>M</td>
<td>S</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>M</td>
<td>Accurate Account of Bottom</td>
<td>Limited Speed, Visibility and Dive Time</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Contamination</td>
<td></td>
</tr>
<tr>
<td>ROV/Camera</td>
<td>M</td>
<td>M</td>
<td>H</td>
<td>M</td>
<td>L</td>
<td>M</td>
<td>Benefits of Divers with Unlimited Dive Time</td>
<td>Cannot Touch Oil on Bottom, Less Effective at Ground Truthing**</td>
</tr>
<tr>
<td>Aircraft – Visual</td>
<td>M</td>
<td>L</td>
<td>L</td>
<td>H</td>
<td>L</td>
<td>L</td>
<td>Able to Rapidly Cover Large Areas</td>
<td>Limited by Depth, Turbidity, Visibility and Weather</td>
</tr>
<tr>
<td>Aircraft – Camera</td>
<td>H</td>
<td>L</td>
<td>L</td>
<td>H</td>
<td>L</td>
<td>L</td>
<td>Able to Rapidly Cover Large Areas</td>
<td>Limited by Depth, Turbidity, Visibility and Weather</td>
</tr>
<tr>
<td>Photo Bathymetry</td>
<td>D</td>
<td>L</td>
<td>H</td>
<td>H</td>
<td>L</td>
<td>H</td>
<td>May Be Effective in Locating Spilled Oil</td>
<td>Limited Without Baseline Photos of the Area</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Rapid Assessments of Large Areas</td>
<td></td>
</tr>
<tr>
<td>Diaper, Snare Drops</td>
<td>M</td>
<td>S</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>Rapid Assessment of Oil in Bottom</td>
<td>Does not Indicate Quantity (or Depth) of Oil in Given Areas</td>
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<td>Inexpensive and Low Tech</td>
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<td></td>
<td></td>
<td></td>
<td>Has been Effective for Certain Spill Situations</td>
<td></td>
</tr>
<tr>
<td>Side Scan Sonar</td>
<td>H</td>
<td>M</td>
<td>H</td>
<td>H</td>
<td>L</td>
<td>M</td>
<td>May Provide some Indication of Where Oil Is Likely to Collect</td>
<td>Calibration and Ground Truthing Slows Progress</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Other Methods Required for Confirmation</td>
</tr>
<tr>
<td>Dragnet</td>
<td>M</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>L/H</td>
<td>L/M</td>
<td>Able to Detect Oil in Water Column</td>
<td>Accuracy and Effectiveness Limited</td>
</tr>
<tr>
<td>Grab Sampler</td>
<td>M</td>
<td>S</td>
<td>M</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td>Simple, Low Tech Quick, Accurate</td>
<td>Drift with Current, Must Hit Direct, Small Sample Area Difficult with Depth and Currents</td>
</tr>
</tbody>
</table>

Legend

Cost: H=$100,000 – UP M=$10,000 – $100,000 L=$0-$10,000 - $10,000
Echo Sweep

1. Description: Echo Sweep is new technology developed in 1996. An integrated SONAR type device gives a type bottom contour that is color enhanced. May be possible to detect layers of different densities, oil layers with this instrument. Needs someone to interpret the data. Positive findings must be verified by other means.

2. System Components: Side Scan SONAR tows buoy, cable, instrument printer, multiple beam swath fathometer, computer and graphing software.

3. Logistical Needs
   A. Platform: Vessel of suitable size (~26 ft) for depth of water and sea state.
   B. Electrical: Needed for SONAR and printer fathometer, and computer.
   C. Winch/Davit: Davit needed to tow buoy.
   D. Manpower: Two to four plus boat crew.
   E. Initial Set-up time: A few hours.
   F. Repeated use decon: Needed only if buoy is contaminated accidentally.

4. Special Services:
   A. Determination of location. Sophistication of system depends on accuracy needed.
   B. Interpretation of data.

5. Area Coverage per Unit Time: Medium.

6. Environmental Considerations
   A. Visibility: N/A
   B. Current Speed: N/A
   C. Depth of water: Need cable length of about twice water depth at least.
   D. False Positive: Will give false positive.
   E. Works best in calm seas.

7. Availability: Refer to Section 9200.

8. Reliability: Reliability depends on depth of water, bottom sediment type, and experience of operator. Must be ground truthed.

9. Costs: Medium.

Remote Operated Vehicle (ROV)

1. Description: The ROV can be outfitted with still and video cameras, Side Scan SONAR, and an integrated GIS referenced mapping system.

2. System Components
   A. ROV: Vehicle (ROV) with tether, Cameras Still and Video, Color Scanning Sonar, Acoustic Positioning Unit, Differential GPS, Water Sampling Devices, Power Supply, and Video Recording equipment
   B. Side Scan Sonar: Tow fish, recorder and cable
   C. Integrated Video Mapping System (IVMS): IVMS unit and GIS software

3. Logistical Needs
A. Platform: System can be operated from 30 ft.
B. Electrical: ROV 10 kW generator, IVMS 1 kW generator
C. Winch: Possibly needed depending on water depth
D. Man power: Typically a 4 man crew
E. Set up time: Approximately 1 day time
F. Decon: Only if inadvertently contaminated

4. Special Services
   A. Photo Development for still photography
   B. Photo interpretation
   C. Side Scan – trained personnel
   D. Computer Software for mapping

5. Area Coverage: Medium

6. Environmental Considerations
   A. Visibility: ROV limited by visibility. Side Scan – not visibility limited. IVMS – visibility limited
   B. Current Speed: can affect all three systems if above ~5 knots
   C. Depth: Typically not limiting for any of the systems
   D. False Positive: Medium

7. Availability
   A. ROVs – many available throughout the world
   B. Side scan sonar – many available throughout the world

8. Reliability: All three collect data very reliably.

9. Costs: Medium

Aircraft Visual

1. Description: Overflights and visual observations by trained personnel can be a valuable and reliable technique. The level of accuracy provided by this technique depends upon clarity and depth of water, the roughness of the surface waves, and the observer’s ability to identify and accurately map submerged oil.

2. System Components: Aircraft: fixed-wing aircraft or helicopter. A helicopter can generally fly slower and at a lower altitude, allowing a better view. GPS with event marker. Area maps.

3. Logistical Needs
   A. Platform: fixed-wing aircraft or helicopter
   B. Electrical: N/A
   C. Winch/Davit: N/A
   D. Manpower: one trained observer and flight crew to assist with navigation
   E. Initial Set-up Time: Rapid
   F. Repeated Use Decon: N/A
4. Special Services: None

5. Area Coverage per Unit of Time: Large

6. Environmental Considerations
   A. Visibility: Water turbidity (suspended sediment) reduces the clarity of the water.
   B. Current Speed: A consideration if it increases water clarity.
   C. Depth of Water.
   D. False Positive Potential: High
   E. Viewing Altitude: Reconnaissance from an altitude of 1,000 to 2,000 ft, but closer observations may be from 200 to 500 ft.
   F. Sun Angle: To minimize sunspots and to maximize illumination of the ocean bottom features, a sun angle of 20-25 degrees is optimum, but good results can be obtained with a sun angle of 10-30 degrees.
   G. Cloud Cover: Clear days are optimal since they provide the best illumination of the sea floor. Also, shadow from passing clouds can be mistaken for submerged oil or depressions in the ocean floor.
   H. Sea surface Roughness: The presence of whitecaps and larger waves can obscure the interpreter’s view of the sea floor.

7. Availability: Availability of aircraft and trained personnel is generally good.


9. Costs: Low

**Aircraft Camera**

1. Description: Used to systematically photo document a large area. Photos must be developed, interpreted, and geo-referenced. The level of accuracy provided by this technique depends mainly upon clarity and depth of water and the roughness of the surface waves.

2. System Components
   a. Aircraft: specially modified small, fixed-wing aircraft with camera mount
   b. Camera Type: 35mm, 70mm, or 9”x9”
   c. Film Type: standard color film, color MS films with a 420-nanometer cutoff filter
   d. GPS Referenced: not usually available
   e. Photo rectification: generally too time consuming with standard photography

3. Logistical Needs
   a. Platform: Aircraft: specially modified small, fixed-wing aircraft with camera mount
   b. Electrical: self contained
   c. Winch/Davit: N/A
   d. Manpower: pilot, cameraman, navigator
   e. Initial Set-up Time: several hours
   f. Repeated Use Decon: N/A

4. Special Services
   a. Photo Development
b. Interpretation: requires specialized skills in photo interpretation

5. Area Coverage per Unit of Time: Large

6. Environmental Considerations
   a. Visibility Air: Haze reduces photo clarity.
   b. Water: If the subsurface oil or sea floor depressions cannot be seen through the camera site, it is unlikely it will be visible in the photograph.
   c. Current Speed: a consideration if it increases turbidity.
   d. Depth of Water: Less turbid waters may allow photography to great depths.
   e. False Positive Potential: High

7. Availability: The photography can be flown by most aerial photography services if provided with the above flight planning characteristics.


9. Costs: Low

Photo bathymetry

1. Description: Generally, photo bathymetry is a time-consuming and labor-intensive process that uses aerial photography to accurately map the contours of the sea floor in order to find depressions where sunken oils are likely to accumulate. The level of accuracy needed would probably make this impractical to implement in the time constraints imposed by most oil calls. The description below assumes a faster, but more qualitative approach of using stereo photography to visually locate depressions in the sea floor and then hand sketching these areas onto a navigable base map.

2. System Components
   a. Aircraft: Specially modified small, fixed-wing aircraft with camera mount
   b. Camera type: 35 mm, 70 mm, or 9” x 9”
   c. Film Type: standard color film, color MS films with a 420-nanometer cutoff filter
   d. GPS Referenced: not usually available
   e. Photo rectification: time consuming because of the photogrammetric procedures involved and the need for ground control points

3. Logistical Needs
   a. Platform: Specially modified small, fixed-wing aircraft with camera mount
   b. Electrical: self contained
   c. Winch/Davit: N/A
   d. Manpower: Pilot, Cameraman, and Navigator
   e. Initial Set-up Time: several hours
   f. Repeated Use Decon: N/A

4. Special Services
   a. Photo Development
b. Interpretation: requires specialized skills in photo interpretation and photogrammetric

c. Computer/Software: these would be provided and used by the photo interpreter

5. Area Coverage per Unit of Time: Large

6. Environmental Considerations

a. Visibility Air: Haze reduces photo clarity. Water: If the subsurface oil or sea floor depressions
cannot be seen through the camera site, it is unlikely it will be visible in the photograph.

b. Current Speed: currents become a consideration only in their ability to suspend sediments and increase
the turbidity of the water.

c. Depth of Water: Water clarity will be a much larger constraint than water depth.

d. False Positive Potential: High

e. Environmental Constraints: Sun Angle Cloud Cover, Sea Surface Roughness, Turbidity

7. Availability: The photography can be flown by most aerial photography services if provided with the above
flight planning characteristics.


9. Costs: High

Diaper & Snare Drops

1. Description: Sorbent pads or sorbent snares are wrapped around a sounding weight and lowered to the bottom.
The device is retrieved to determine if oil was encountered.

2. System Components: A weight on a line or cable and sorbent material.

3. Logistical Needs

A. Platform: Vessel of suitable size for depth of water and sea state

B. Sorbent material

C. Sounding weight

D. Electrical: N/A

E. Winch/Davit: May be needed if water is over 15 ft. Capstan may substitute for a winch.

F. Manpower: two to four plus boat crew

G. Initial Set-up time: Rapid

H. Repeated use decon: Contaminated sorbent material disposed. Weight and line may need decon.

4. Special Services: Determination of location. Sophistication of system depends on accuracy needed.

5. Area Coverage per Unit Time: Small. Actual area covered per drop is less than one square foot. Grid size
during the reconnaissance phase is much greater than if area is intensively mapped. Works best if oil covers
large area of bottom because area sampled is small.

6. Environmental Considerations

A. Visibility: N/A

B. Current speed: Effects position holding by vessel during sampling. The deeper the water the more effect
current will have.

C. Dept of water. If over 15 ft. deep, a winch and davit will be needed if many drops are to be made.
D. False Positive: Will not give false positive.

7. Availability: Parts of system are available.

8. Reliability: Very reliable; however, works best if oil covers large area of bottom because area sampled is small.

9. Costs: Low

**Side Scan Sonar**

1. Description: Side Scan SONAR gives an ultra sound type print out of the bottom contour and is limited by the buoy cable length, typically 30 to 100 ft. It could be useful to find pockets where oil may collect. Needs someone to interpret the data. Positive finds must be verified by other means.

2. System Components: Side Scan SONAR two buoy, cable instrument printer.

3. Logistical Needs
   A. Platform: Vessel of suitable size (~26 ft.) for depth of water and sea state.
   B. Electrical: Needed for SONAR and printer.
   C. Winch/Davit: Davit needed to tow buoy.
   D. Manpower: Two to four plus boat crew.
   E. Initial Setup Time: Rapid
   F. Repeated use decon: Needed only if buoy is contaminated accidentally.

4. Special Services
   A. Determination of location. Sophistication of system depends on accuracy needed.
   B. Interpretation of data

5. Area Coverage per Unit Time: Medium

6. Environmental Considerations
   A. Visibility: N/A
   B. Current speed: N/A
   C. Depth of water. Need cable length of about twice water depth at least
   D. False Positive: Will give false positive
   E. Works best in calm seas

7. Availability: Check with ACOE or CBP.

8. Reliability: Reliability depends on depth of water, bottom sediment type, and experience of operator. Must be ground truthed.

9. Costs: Medium

**Dragnet**

1. Description: A small mesh net is pulled through the water or on the bottom. The device is retrieved to determine if oil was encountered.

2. System Components: A manually operated minnow-type seine or a vessel towed shrimp net. Sorbent material can be attached to net.

3. Logistical Needs
B. Seine or shrimp net with or without sorbent material
C. Electrical: N/A
D. Winch/Davit: Needed for shrimp net
E. Manpower: Two for minnow seine. Two to four plus boat crew for shrimp net
F. Initial Setup Time: Rapid
G. Repeated use decon: Contaminated nets must be deconned after each oily encounter

4. Area Coverage per Unit Time: Small to medium depending on decon time

5. Environmental Considerations
A. Visibility: N/A
B. Current speed: Needs to be below one knot for seine and below 3 knots for shrimp net.
C. Depth of water: 3 feet or less with seine. 50 feet or less for shrimp net.
D. False Positive: Will not give false positive. May give false negatives.

6. Availability: Parts of system are available.
7. Reliability: Very reliable; however, nets should be retrieved often to accurately locate oil and to prevent scouring and removal of oil from net.
8. Costs: Low/Medium

Grab Sampler
1. Description: A Grab sampler, or similar type bottom dredge is lowered to bottom and the top few inches of the sediment is collected. The device is retrieved to determine if oil was encountered. Under good conditions, the thickness of the oil on the bottom can be estimated.
2. System Components: A grab sampler or similar type bottom dredge, winch and davit.
3. Logistical Needs
   A. Platform: Vessel of suitable size for depth of water and sea state.
   B. Grab sampler of similar type bottom dredge
   C. Electrical: N/A
   D. Winch/Davit: 200 pound capacity (sampler weighs 16 to 60 pounds). Capstan may substitute for a winch.
   E. Manpower: two to four plus boat crew
   F. Initial Set-up time: Rapid
   G. Repeated use decon: Contaminated sampler must e deconned after each use.
4. Special Services: Determination of location. Sophistication of system depends on accuracy needed.
5. Area Coverage per Unit Time: Actual area covered per drop is less than one square foot. Grid size during the reconnaissance phase is much greater than if area is intensively mapped. Works best if oil covers large area of bottom because area sampled is small.
6. Environmental Considerations
A. Visibility: N/A

B. Current speed: Effects position holding by vessel during sampling. Affects angle of penetration; sampling will not be effective if angle of penetration is greater than about 20 degrees from the vertical. Sampler must be retrieved before retrieval line is greater than about 45 degrees from the vertical. The deeper the water the more effect current will have.

C. Depth of water. Works best in shallow water, less than 25 ft. Success rate decreases with increasing depth.

D. Bottom sediment type. Works best in sandy silt sediment. If sediment is too soft, grab sampler will overpenetrate. If bottom is hard sand, grab sampler may not penetrate.

E. False Positive: Will not give false positive.

7. Availability: Parts of system are available.

8. Reliability: Dependent upon depth of water, bottom sediment type and experience of operator. However, works best if oil covers large area of bottom because area sampled is small.

9. Costs: Low/Medium

RESPONSE METHODOLOGY

CONTAINMENT / PROTECTION METHODS

Natural Collection Sites
Silt Curtains used in Dredging Ops
Surface to Bottom Nets/Screen
Weighted Bottom Boom

RECOVERY METHODS

Mechanical Systems
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Vacuum System
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<th>Logistics Requirements</th>
<th>Unsuitable Bottom Types</th>
<th>Availability Mobilization Time</th>
<th>Collateral Environmental Damage</th>
<th>Product Types</th>
<th>Cost</th>
<th>Efficiency Volume</th>
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<td>L</td>
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<td>M</td>
<td>HE / LV</td>
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<td>Silt Rip Rap</td>
<td>D</td>
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<td>Time, Cost, Availability Environmental damage High Logistic Support needs</td>
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<td>Rip Rap</td>
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<td>H</td>
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<td>Recover solids and non-pumpable products</td>
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<td>M</td>
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<td>D</td>
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<td>H</td>
<td>ME / HV</td>
<td>Efficient for concentrated (localized) solids Segregate Waste</td>
<td>Cost Logistic support</td>
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<td>Surface Operated Suction</td>
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<td>H</td>
<td>L</td>
<td>Pumppable Liquids</td>
<td>M/H</td>
<td>LE / L to M Volume</td>
<td>Works well with contained pumpable product Available, Scalable (1” to Big Pumps) Scalable Platforms</td>
<td>High Maintenance</td>
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<td>H</td>
<td>L</td>
<td>Pumppable Liquids</td>
<td>M/H</td>
<td>ME / LV</td>
<td>Available Easy to Rig up and Use</td>
<td>Slow Disposal issues</td>
</tr>
</tbody>
</table>

**LEGEND**
- High: Minutes
- Medium: Hours
- Low: Days

**GROUP V OIL SPILL RESPONSE METHODOLOGY MATRIX**

**Cost:**
- **H:** $100,000 - Up
- **M:** $10,000 - 100,000
- **L:** $0 - $10,000
Dragnets

1. Description: A Dragnet is usually made from fishing or similar type nets. The dragnets are rigged with pompoms or viscous sweep snares in a checkerboard pattern every eighteen to twenty-four inches apart. The nets are generally cut to a ten to twelve foot length and can be outfitted with weights on the bottom of the nets to ensure that the nets stay on the bottom as much as possible without floating up. The most efficient drag periods are 15-30 minutes, depending on product and encounter rate. When Low API Oil is encountered with dragnets, consideration must be given to the fact that the nets will be extremely heavy to retrieve and will require appropriate mechanical assistance. Another important consideration is the temperature of the air and deck surface of the vessel, in relation to the temperature of the water from which the product is retrieved. Generally, if the ambient air temperature and the temperature of the deck of the vessel are warmer than the water temperature, then consideration must be given to the fact that many products will liquefy rapidly once brought out of the water. Particularly on sunny days during the warmer months of the year, this product phase change may occur simultaneously as the product is being lifted out of the water, and cause either an oil seen/spill onto the water and/or onto the deck surface and sides of the vessel.

2. System Components: Netting, slide flats, wire cable, chain, polyrope, viscous sweep, wire tie wraps, cable clamps and bottom weights.

3. Logistical Needs
   A. Platform (minimum size for equipment) 65’ average. Size would depend on water depth and sea conditions.
   B. Electrical (Not required)
   C. Winch/Davit is needed for deployment and recovery of the dragnet system
   D. Manpower (including maintenance) would require a minimum of six personnel
   E. Set-up time once location reached (with dragnets already rigged for use), would take approximately 15 minutes to deploy the nets.
   F. Repeated Use Decon (generally not application due to the fact that once oil is encountered, the nets usually become grossly contaminated and would need to be replaced with a clean system).

4. Special Services (Not Applicable)

5. Area Coverage per Unit Time
   A. Point, Swath Width is approximately 150’
   B. Beginning/Ending Locations (as identified on grid with estimated 15-30 minute drag periods)

6. Environmental Consideration
   A. Visibility of product is difficult under most circumstances and can be supplemented by GPS coordinates, after location of contaminates is determined by aerial or other identification means.
   B. Current Speed would be a maximum of 5 knots for utilization of dragnets.
   C. Tidal Ebb and Flow conditions will affect operations dependent upon incident location (offshore or inland waters).
   D. Wave Action conditions will affect operations dependent upon incident location (offshore or inland waters).
   E. Water Depth can be a problem over 50’. Units can be designed for specific incident parameters.
   F. Weather conditions are definitely a consideration in dragnet operations.
   G. False Positives (Not Applicable)
7. Availability
   A. Number of Units is not a problem due to the fact that the units can be designed and manufactured upon request and are usually fabricated in the field.
   B. Remote Locale Accessibility is generally good due to the fact that units can be easily shipped.

8. Reliability
   A. Number of Units should generally be three, with additional units available due to decon considerations.
   B. Dragnets are good detection devices, while only being fair to mediocre recovery devices, better suited to products that striate through the water column as opposed to products that lump on the bottom.

9. Other Conditions to consider would be the accessibility of materials that is dependent upon location. Coastal areas are more likely to have supplies needed to manufacture dragnets. Materials are generally available at coastal marine supply locations (i.e., nets, fishing supplies, steel cable and wire rope suppliers, etc.)

For more info, reference 33 CFR 155.1052.

To view the National Academy of Sciences “Spills of No floating Oils Risk and Response” report dated 1998, go to: www.nasonline.org
9500 List of Agreements

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9510 Federal MOUs

9510.1 MOU between Environmental Protection Agency and the United States Coast Guard

Signed 4 January 1982
This MOU between the U.S. Coast Guard and the Environmental Protection Agency is a Letter of
Agreement to provide pre-consultation and concurrence for the authorization of limited use of dispersants
and other chemicals on oil spills by pre-designation USCG On-Scene Coordinators.

9510.2 MOU between Environmental Protection Agency and the United States Coast Guard

Signed 6 September 1979
This MOU between the U.S. Coast Guard and the Environmental Protection Agency states the agreement
between the two services that the responsibility for the mitigation of damage to the public health and
welfare caused by the discharge of hazardous substances shall be shared.

9510.3 MOU between Environmental Protection Agency, United States Coast Guard, and National Institute for
Occupational Safety and Health Administration
9510.4 MOU between Department of the Interior and Department of Transportation

Signed 16 August 1971
In order to assure the most efficient use of resources under the National Oil and Hazardous Substances Pollution Contingency Plan, the Secretaries of the Department of the Interior and Transportation agree to share responsibilities in reference to Hazardous Substance Release Response.

9510.5 MOU between Environmental Protection Agency and United States Coast Guard

Signed 01 January 1982
The U.S. Coast Guard and the Environmental Protection Agency agree that a mechanism is required to fund to fund USCG costs incurred during emergency response to releases, or the threats of releases of hazardous substances or pollutants or contaminants. This Memorandum of Understanding establishes the accounting, contracting, and fund management control policies and procedures for USCG response actions.

9510.6 MOU between U.S. Fish and Wildlife Service and United States Coast Guard

Signed 24 July 1979
The purpose of this agreement is to specify the conditions and procedures under which the U.S. Fish and Wildlife Service will provide the U.S. Coast Guard Federal On-Scene Coordinators with appropriate technical expertise as well as services in support of the Federal Government's efforts to control and clean up oil and hazardous chemical discharges.

9510.7 MOU for United States Coast Guard Auxiliary in support of the Marine Environmental Protection Program

Through mutual involvement and commitment, a Coast Guard objective has been set to mobilize the Coast Guard Auxiliary in a dynamic "Team Coast Guard" approach, which actively engages Auxiliarists as "Full Partners" in aggressively promoting marine environmental protection and effectively reducing pollution in our nation's waterway.

9510.8 MOU between Director of Military Support (DOMS) and United States Coast Guard
Signed 12 Aug 1996.
This MOU specifies the procedures by which the U.S. Coast Guard can request the U.S. Air Force Reserve to provide aircraft, equipment and personnel for the application of oil dispersants during oil spill cleanup and removal operations and establish interagency cost reimbursement.

9510.9 MOU between United States Coast Guard and Environmental Protection Agency

Signed 09 October 1981.
The MOU states the agreed upon functions for responses to releases from vessels and facilities. Functions related to immediate removal action concerning releases or threats of releases at facilities other than active or inactive "hazardous waste management facilities".

9510.10 Inter-Agency MOU Regarding Oil Spill Planning and Response Activities Under the Federal Water Pollution Control Act’s National Oil and Hazardous Substances Pollution Contingency Plan and the Endangered Species Act

The inter-agency (USCG, EPA, NOAA, NMFS, FWS, and DOI) agreement provides a general framework for cooperation and participation among all the parties in the exercise of their oil spill planning and response responsibilities with regard to wildlife.

9510.11 MOU between USCG, EPA and Corporation for National and Community Service (CNCS)

Signed March 2011.
This MOU between the USCG, EPA and CNCS describes the major responsibilities of each party in developing and supporting an unaffiliated volunteer management program to be implemented following an oil or hazardous substance pollution incident as requested by the USCG/EPA OSC.

9520 State MOUs

9520.1 MOU between USCG and Florida Institute of Oceanography

Signed June 2012.
MOU between USCG and Florida Institute of Oceanography. This is a strategic partnership that was developed based on some of the lessons learned from the Deepwater Horizon response and the fact that the public, private and research institute academia have a wealth of knowledge they can contribute to the USCG’s all hazards contingency planning for spills impacting the maritime zone. This contribution runs full circle from planning to response and restoration.
NOAA has and will always be our main scientific support but the partnership with FIO and its 28 institutional members provides additional levels of interest particularly with the unique ecosystems of waters around the State of Florida. Below is a link to the FIO website:
FIO website: http://fio.usf.edu/Home.aspx

9530 Local MOUs
[Reserved for future Area Committee Development]
9600 Conversions and Estimating Sheen

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9610 Sheens

You’ve just boomed off a diesel spill that measures approximately 300 yards by 200 yards. The spill is bright rainbow sheen. Use the following calculation to estimate the amount spilled.

Spill Thickness Conversions

Silvery Sheen .0000315 Gals/ Sq Yard
First Colors .0000630 Gals/ Sq Yard
Bright Rainbow .000126 Gals/ Sq Yard
Dull Colors .000378 Gals/ Sq Yard
Dark Colors .001134 Gals/ Sq Yard

Multiply (spill thickness) x (length in yards) x (width in yards)

.000126 Gals/ Sq Yards x 300 yards x 200 yards = 7.56 gallons spilled
9620 Film & Emulsions

You have just boomed off a spill that is 20 yards wide by 50 yards long. You have a 1/4” amber colored diesel film. This conversion assumes even coating of the spill across the surface of the water and should only be used as estimation.

Cubic Inches to Gallons .004329
Yard to inches 36
Multiply (spill thickness) x (length in inches) x (width in inches)
.25" x 50 yards x 20 yards
.25" x 1800 cu" x 720 cu" = 324,000 cu"
324,000 cu" x .004329 = 1,402 gallons spilled
## 9630 Temperature Conversions

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## 9640 Chemistry Conversions

### 9640.1 DOT Hazard Classes

http://phmsa.dot.gov/hazmat

See Section 7500 for more details.
9640.2 Specific Gravity

*Water = 1*

>1 = Sink <1 = Float

9640.3 Vapor Density

*Air = 1*

>1 = Sink <1 = Rise

9640.4 pH

>7 = Base <7 = Acid
Northeast and Eastern Central Florida Area Contingency Plan

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9710 Strategies, Sensitive Areas, GRPs and TIPS

http://ocean.floridamarine.org/ACP/jaxACP/maps.html

9711 Fast Water Containment

In the U.S, seventy percent of oil cargo is transported through waters where the current exceeds one knot under these conditions it is essential to improve the ability and efficiency of spill recovery operations

Over the past few years the U.S. Coast Guard Research and development Center has conducted a great deal of work to improve fast water containment and recovery capabilities in all USCG area of operations.

The Oil Spill Response in Fast Current—Field Guide and Decision Tool, provides information to field oil spill response units on deployment strategies and techniques that will maximize the effective ness of conventional oil spill recovery systems. Identifies new-generation booms and skimmers with higher efficiencies in fast currents to increase recovery capability in areas where conventional systems do not work well. Details are given for the decisions that need to be made and the types of equipment needed to safely deploy these systems. See the link below:
9720 Tech References

9721 Incident Management Handbook (IMH)

9722 ICS Forms and Job Aids
Please refer to the following links:
https://homeport.uscg.mil/mycg/portal/ep/browse.do?channelId=-17668

9723 CHRIIS Manual
The Chemical Hazards Response Information System (CHRIS) manual can be found at the below link:

9730 Regional Response Team 4 Plans

There are thirteen Regional Response Teams (RRTs) in the U.S., each representing a particular geographic region (including the Caribbean and the Pacific Basin). RRTs are composed of representatives from field offices of the federal agencies that make up the National Response Team, as well as state representatives.

RRTs provide a forum for federal agency field offices and state agencies to exchange information about their abilities to respond to on-scene coordinators' (OSCs') requests for assistance. As with the NRT, RRT members do not respond directly to releases or spills, but may be called upon to provide technical advice, equipment, or manpower to assist with a response. Each RRT develops a Regional Contingency Plan to ensure that the roles of federal and state agencies during an actual incident are clear.

9731 Regional Contingency Plan
Plan is available online at:

9732 RRT Ops Manual

9733 RCP Dispersants Plan
http://www.nrt.org/production/NRT/RRTHome.nsf/Resources/DUP/$file/1-RRT4DISP.PDF
9740 Relevant Statute/Regulations/Authorities List

9741 Federal Water Pollution Control Act (FWPCA)
- 33 USC 1321
- Passed in 1972 and designed to eliminate all water pollution by 1985.
- Established the National Contingency Plan (NCP), 40 CFR 300-provided a national action plan for pollution containment, dispersal, and removal.
- Created the National Strike Force.
- Provisions which made spiller obligated to respond to a spill.
- Established Civil and Criminal Penalties.

9742 Clean Water Act (CWA)
- 46 CFR 31, 35, 112
- Amended FWPCA.
- Allowed USCG to clean up a spill and recover costs incurred by spiller.
- 311-K revolving pollution fund with $35 million ceiling (33 USC 1321, sec.311, paragraph. K).
- Pollution Prevention Requirements (PPR) (33 CFR 151. 154-156).
- Created National Response Center.
- Defined “harmful quantity” and “reportable quantity” (RQ).

9743 Oil Pollution Act of 1990 (OPA 90)
- Amended FWPCA/CWA.
- $1 Billion Oil Spill Liability Trust Fund (OSLTF) which combined 311-K and additional Congressional appropriations-controlled by National Pollution Fund Center (NPFC).
- Taxes on crude oil, which along with recovered penalties, maintains the OSLTF (6 cents a barrel).
- Established authority for Federal On Scene Coordinator (FOSC) to designate Responsible Parties (RP) – Although NPFC usually does.
- Established National Strike Force Coordinator Center and reestablished the Atlantic Strike Team.
- Increased RP liabilities and responsibilities.
- Increased penalties for a violation of the FWPCA (“The Act”).
- Allows states access to the Oil Spill Liability Trust Fund.
- Allows for third party claims for personal property and environmental damaged caused by an accident.

9744 Refuse Act of 1899
- Applies to trash: tires, refrigerators, trees, cars, etc.
- Anything that creates a “Hazard to Navigation.”
- Fines of $500-$2,500 and imprisonment for 30 days to a year.
- Army Corps of Engineers (ACOE) enforcement.
- The main purpose of the law is to maintain clear navigation channels.
9745 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- 40 CFR 302
- Requires RP to report any release of HAZ substances if meets or exceeds the RQ.
- Created $1.6 Billion Superfund.
- Violations: Civil-$32,500 per violation; $32,500 per day if continuous… depending on the situation (reference: Civil Penalty Guide).
- Criminal: up to 3 years imprisonment and maximum fine of $50,000.
- Before On Scene Coordinator (OSC) can initiate a response, 3 jurisdiction elements must be present:
  - Material must be a hazardous substance or it is a pollutant or contaminant that may present an imminent and substantial danger to the public health or welfare.
  - There has been a release, or there is a substantial threat of a release, into the environment. Release at RQ must be within 24hr period.
  - The RP is not taking proper removal actions.

9746 Superfund Amendment and Reauthorization Act (SARA)

- Amended CERCLA.
- Created $8.5 Billion Superfund.
- Redefined release to include abandonment or discarding barrels, drums, enclosed container, etc.
- Reimbursement of expenses incurred by local govt. by carrying out responses (up to $32,500 a day).
- Redefined response to include enforcement activities.
- Extended liability to foreign ships in areas under U.S. control, whether or not such vessels were otherwise subject to U.S. jurisdiction.

9747 Resource Conservation and Recovery Act (RCRA)

- Protects human health and environment by reducing waste and conserving energy and natural resources.
- Reduces or eliminates the generation of Hazardous Waste as expeditiously as possible.
- Covers waste from generation to disposal, “CRADLE TO GRAVE”.

9748 National Contingency Plan

The National Contingency Plan can be found at the below link:

http://www.epa.gov/oem/content/lawsregs/ncpover.htm

9749 National Response Plan (NRP)

A PDF copy of the NRP is available at:

www.fema.gov
Information regarding training on the NRP and NIMS may be found at the FEMA training website at: http://www.training.fema.gov/

9750 Firefighting Resources

9750.1 Jacksonville Fire Rescue Resources

Marine 1 – Fire Station 38
Station Address: 469 Trout River Dr. (32208)
Latitude/Longitude: N30-23-37 W81-38-50
Station Non-emergency Telephone Number: 904-764-8477
Launching Time: Less than 5 minutes

Marine 2 – Fire Station 38
Station Address: 469 Trout River Dr. (32208)
Latitude/Longitude: N30-23-37 W81-38-50
Station Non-emergency Telephone Number: 904-764-8477
Top Speed: 45 mph
Launching Time: Less than 5 minutes

Marine 3 – Fire Station 39
Station Address: 1408 Gator Bowl Blvd. (32202)
Latitude/Longitude: N30-19-13 W81-38-18
Station Non-emergency Telephone Number: 904-630-0866 or 904-630-0867
Top Speed: 45 mph
Launching Time: Two to three minutes

Marine 4 – Fire Station 39
Station Address: 1408 Gator Bowl Blvd. (32202)
Latitude/Longitude: N30-19-13 W81-38-18
Station Non-emergency Telephone Number: 904-630-0866 or 904-630-0867
Top Speed: 45 mph
Launching Time: Reserve vessel not currently manned

Marine Skiff – Fire Station 38
Station Address: 469 Trout River Dr. (32208)
Latitude/Longitude: N30-23-37 W81-38-50
Station Non-emergency Telephone Number: 904-764-8477
Top Speed: 40 mph
Launching Time: Moored on the stern of Marine 1, used for shallow water

9750.2 Fernandina Fire Rescue Resources

The services that the Fernandina Beach Fire Department provides to our residents and visitors include: fire suppression, advanced life support and emergency medical services transport, hazardous materials response, fire prevention & public safety education, ocean rescue lifeguarding services, and emergency disaster preparedness. All
of the men and women of your Fire Department Operations division are cross-trained to provide fire suppression and emergency medical responses. Each member is professionally trained and certified by the State of Florida as a Firefighter/Emergency Medical Technician or a Firefighter/Paramedic. Additionally, several of our members have received specialty training and hold certifications as Hazardous Materials Technicians, Fire Service Instructors, Fire Safety Inspectors, and Fire Investigators. Operating out of two fire stations, we are fully staffed and prepared to respond to emergency and non-emergency service calls 24 hours a day.

Jason Higginbotham, Fire Chief (904) 277-7331, f (904) 310-3453

9760 List of High-Risk HAZMAT in AOR
This information is For Official Use Only (FOUO) and may be provided upon request. Please contact the Sector Jacksonville Contingency Planning and Readiness Department at (904) 564-7500.

9770 List of Pre-staged Resources and Capabilities

Refer to the following website for the current BOA vendor list:

http://www.uscg.mil/SILC/emergency.asp
Northeast and Eastern Central Florida
Area Contingency Plan

Appendix 9800:
Weapons of Mass Destruction
Response Plan
9800 Weapons of Mass Destruction

This Annex defines the unified response to Weapon of Mass Destruction events under this plan; this plan is activated whenever a WMD is discovered (regardless detonation) or whenever there is credible evidence that a WMD event has occurred (including illness, clear terrorism implications, or credible information regarding an incident otherwise considered a Hazardous Materials release above the Reportable Quantity within the area defined in Annex 1000 of the plan. State, local, and federal responders are bound by this plan for all such responses. This Annex is organized as follows:

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9810 Introduction

The response to mitigate the hazards of a WMD incident is the same mechanism used to respond to a non-terrorism hazardous materials (hazmat) incident. However, if the incident was suspected to be the result of a criminal act of terrorism, the response needs to be coordinated with the FBI (as the overall lead for terrorism incidents in the U.S.). In addition, during a terrorist attack it is likely that the cause will be unknown (at least initially), therefore, Coast Guard responders should consider the possibility of terrorism when conducting their initial assessments of a hazmat

Contingency planning is essential to the successful implementation of any system designed to manage and contain a hazardous substance release. Contingency plans require a coordinated community response that may also involve state and federal agencies. Planning and coordination of services are equally critical at the national and regional level. The federal government established a National Contingency Plan (NCP) to promote coordination of resources and services of federal and state response systems. To oversee this plan, a National Response Team (NRT) and a National Response Center, a network of Regional Response Teams (RRTs), and a group of On-Scene Coordinators (OSCs) have been established.

This hazardous materials/substances annex will outline and illustrate the local, state, and federal actions needed to properly mitigate a release of hazardous substances into the environment. This plan provides an integrated federal document to consolidate the actions by various agencies and organizations in support of the progression of the response.

This document identifies standard operating procedures for entering and leaving sites, accountability for personnel entering and leaving sites, decontamination procedures, recommended safety and health equipment, and personal safety precautions. The plan includes a list of emergency response equipment appropriate to the various degrees of hazard based on EPA’s four levels of protection (Levels A through D). The priority of response is to mitigate the effects of the hazardous substance release while protecting responders and the community.

9811 Background Information

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR part 300) establishes the National Response System (NRS) as the federal government’s response management system for emergency response to releases of hazardous substances into the environment of the United States.

This system functions through a network of interagency and intergovernmental relationships and provides for coordinating response actions by all levels of government to a real or potential hazardous substances incident. A primary mission of the federal system is to provide support to state and local response activities. Hazardous substances response under the NRS is divided into three organizational levels: the National Response Team (NRT), Regional Response Teams (RRTs), and On-Scene Coordinators (OSCs).

At the National level, the NRT is comprised of 16 federal agencies with interests and expertise in various aspects of emergency preparedness and response to pollution incidents. The NRT provides national planning and policy guidance prior to incidents, and assistance as requested during an incident. Like the NRT, the RRTs are planning, policy, and coordinating bodies, and usually do not respond directly to the scene; rather they provide support, advice, and assistance to the Federal OSCs. All NRT member departments and agencies, as well as state and local participants, are represented on RRTs.

Federal OSCs are the federal officials pre-designated by EPA and the USCG to coordinate response resources. The FOSC, either directly or through his or her staff, monitors, provides technical assistance, and/or directs federal and
other resources. As the state and local responder’s gateway to the resources of the NRS, it is the FOSC’s responsibility to provide access to resources and technical assistance that may not otherwise be available to a community. Under the NCP, if federal involvement is necessary because state and local resources have been exceeded, the FOSC is obligated to coordinate the use of these resources to protect public health and the environment.

During a hazmat/WMD incident, EPA will usually provide OSCs in the inland zone, and the USCG will generally provide OSCs in the coastal zone. The OSC coordinates all federal containment, removal, and disposal efforts and resources during an incident under the NCP or the National Response Plan (NRP). The FOSC is the point of contact for the coordination of federal efforts with those of the local response community.

Agencies other than EPA or USCG might provide the OSC depending on the incident. While EPA and USCG have primary responsibility under federal laws and regulations, under CERCLA, DOD, DOE, and other federal agencies provide OSCs for incidents for which they have responsibility for releases of hazardous substances. If a federal agency – other than EPA, USCG, DOD, or DOE – has responsibility for an incident, they only provide the OSC if the incident involves non-emergency removal actions.

Each of the agencies in the NRS provides resources and technical expertise and has access to a wide range of federal assets, such as equipment and special expertise, through the RRT. During an emergency, or for other response support needs, the NRS can be accessed 24-hours a day by calling the National Response Center (NRC) at 1-800-424-8802. Located in the USCG headquarters command center and operating 24-hours a day, the NRC immediately relays reports to the cognizant, pre-designated OSC.

The NRC receives reports of all chemical, radiological, etiological (causes of a disease or abnormal condition), and biological releases regulated by various federal statutes. (However, the only statutory requirements for reporting to the NRC are the Clean Water Act [CWA] for oil discharges, the Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] for hazardous substance releases, and the Hazardous Materials Transportation Act [HMTA] for hazardous materials releases.

When a discharge or release is discovered or reported, the pre-designated OSC is responsible for immediately collecting pertinent facts about the discharge or release to evaluate the situation. Based on the evaluation, if the OSC decides a federal emergency response action is necessary, he or she works with state and local emergency response teams, local police and firefighters, and/or other federal agencies to eliminate the danger.

While all significant hazardous substance releases must be reported to the NRC, many inland responses are effectively handled without any direct involvement by the federal government. Other responses require federal assistance when the incident exceeds state and local capabilities. In other words, the federal government acts as a “safety net” for state, local, tribal, and private party responders.

9812 Definitions

Weapons of Mass Destruction (WMD): As defined by 18 USC 2332a, the term “weapon of mass destruction” means: (a) any destructive device (e.g., explosive or incendiary); (b) any weapon that is designed or intended to cause death or serious bodily injury through the release, dissemination, or impact or toxic or poisonous chemicals (or their precursors); (c) any weapon involving a disease organism; or (d) any weapon that is designed to release radiation or radioactivity at a level dangerous to human life. In addition to the classical warfare agents, this definition appropriately includes toxic industrial chemicals and explosives, which are the more likely threat to Coast Guard personnel.

Federal On Scene Coordinator (FOSC): The FOSC is the pre-designated federal official assigned to coordinate and direct the response to oil and hazardous substances under the National Oil and Hazardous Substances Pollution
Contingency Plan (referred to as the National Contingency Plan (NCP)) (reference (a)). EPA serves as FOSC for incidents in the inland zone and Coast Guard serves as FOSC for incidents in the coastal zone.

**UCoastal ZoneU:** Under the NCP, the coastal zone means all U.S. waters subject to tides, including the Great Lakes and specified ports on inland rivers, waters of the contiguous zone, other waters of the high seas subject to the NCP, and adjacent land areas to those waters. The Inland/Coastal Zone boundary defines the jurisdiction for EPA and USCG for oil and hazmat response and is outlined in each Regional Contingency Plan (RCP) and Area Contingency Plan (ACP).

### 9813 Assumptions/Planning Factors

1. The release of radiological, biological or chemical hazards may be caused by accident or terrorist action. It is likely that first responders will not immediately know the cause. As a result, Coast Guard, state, and local emergency (consequence management) responders must consider the possibility of terrorism when responding to incidents and ensure responder safety (e.g., Force Protection).
2. In response to a terrorist event in a port area, Coast Guard units will be expected to conduct simultaneous activities to respond to the incident and increase security measures to prevent additional attacks.
3. Concurrent terrorist events may occur over a large region or nation-wide, requiring District, Area or national level prioritization of response objectives and coordination of national assets.
4. The National Response Plan may not always be activated for a WMD incident. In these cases, the Coast Guard (as the FOSC) may be the Lead Federal Agency for mitigating oil or hazmat incidents under the NCP.

### 9814 Concept of Operations and Governing Principles

#### 9814.1 National Response System Concepts: Response

The national response is designed to augment and support the local response with a variety of resources. Normally, a federally lead response would not occur unless the local and state response system is overwhelmed, or there are incident issues that need to be addressed by the federal authority.

This figure depicts the response process. Over ninety-five percent of incidents are handled at the local level. Under Title I CERCLA, EPA has authority to reimburse local community authorities for certain expenses regarding hazardous substance response incurred in carrying out temporary emergency measures to prevent or mitigate injury to human health or the environment.
<table>
<thead>
<tr>
<th>Tier</th>
<th>Tier Description</th>
<th>Incident Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1</td>
<td>Local Response for Environment and Health Safety</td>
<td>An incident or threat of a release which can be controlled by the first response agencies and does not require evacuation of other than the involved structure or the immediate outdoor area. The incident is confined to a small area and does not pose an immediate threat to life or property.</td>
</tr>
<tr>
<td><strong>“Potential Emergency Condition”</strong></td>
<td><strong>IC</strong>: Local Fire Chief or Hazmat Team Leader</td>
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<td></td>
<td>Potential Supporting Agencies:</td>
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<td>• Fire Department Emergency Medical</td>
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<td>• Partial EOC Staff</td>
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<td>• Public Information Office</td>
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<td>• National Response Center</td>
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<td></td>
<td><strong>ACP Action</strong>: Provide support for local response at the request of the IC in way of technical expertise, resources, and/or funding. Focus is to fill response gaps identified by IC.</td>
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</tr>
<tr>
<td>Tier 2</td>
<td>Environmental and Health/Safety Response Under the NCP</td>
<td>An incident involving a greater hazard or larger area which poses a potential threat to life or property and which may require a limited evacuation of the surrounding area. Leading to:</td>
</tr>
<tr>
<td><strong>“Limited Emergency Condition”</strong></td>
<td><strong>IC</strong>: Federal On Scene Coordinator (FOSC)</td>
<td>An incident involving a severe hazard or a large area which poses an extreme threat to life and property and will probably require a large scale evacuation; or an incident requiring the expertise or resources of county, state, federal, or private agencies/organizations</td>
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<td><strong>UC</strong>: FOSC, State/Local OSC, and/or Property Owner/Operator</td>
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<td></td>
<td>Potential Supporting Agencies:</td>
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<tr>
<td></td>
<td>• All Agencies listed in Tier 1</td>
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<td>• HAZMAT Teams</td>
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<td>• Public Works Dept</td>
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<td>• Red Cross</td>
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<td>• County Emergency Management Agency</td>
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<td>• State Police</td>
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<td>• Public Utilities</td>
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<td><strong>For Larger Events:</strong></td>
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**Classification**: UNCLASSIFIED  
**Controlling Authority**: AREA COMMITTEE  
**Issuing Authority**: CAPT T.G.ALLAN, JR  
**Page**: 9800-6
### Tier 3 – Environmental and Health/Safety Response Under the National Response Plan (NRP)

**“National Disaster Declaration”**

- All Agencies listed in Tier 1 and above
- Mutual Aid Fire, Police, Emergency Medical
- State Emergency Management
- State Environmental Agency
- State Department of Health
- EPA
- USCG
- All NRS supporting agencies

**ACP Action:** Support entire response effort. Refer health issues to health agencies.

### Consequence Management Lead: FEMA

**ESF #10 Action:** Focus on environmental issues surrounding oil, hazardous substances, bio-hazards, etc.

**ACP Action:** Response on the ground is supported similar to a NCP hazmat response. Response funded by FEMA.

**ESF #8 Action:** Refer health, medical, and safety issues to ESF #8.

**Potential Supporting Agencies:**

- All Agencies listed in Tiers 1 and 2
- All federal agencies supporting FEMA and the NRP

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### 9815 Response Guidance and Doctrine

In 1996, with the increase in terrorist activity against American targets both here and abroad, Congress passed the Defense against Weapons of Mass Destruction (WMD) Act. This legislation, better known as the Nunn-Lugar-Domenici (NLD) legislation, is designed to enhance the capabilities of our nation to effectively respond and manage
the consequences of potential terrorist acts involving the use of WMD. Congress designated the Department of Defense to lead the Domestic Preparedness Program to provide basic training, exercises, and other assistance to first responders and senior officials across the nation.

The Antiterrorism and Effective Death Penalty Act of 1996, called for the development and delivery of training for fire and emergency medical personnel for the response to WMD.

In October 1998, the Department of Justice, through the FBI, became the lead federal agency tasked to coordinate all domestic preparedness matters through the National Domestic Preparedness Office (NDPO) in partnership with other federal, state, and local agencies that have relevant authority, jurisdiction or expertise in this area.

Presidential Decision Directive (PDD) – 39/U.S. Policy on Counter-terrorism was issued in June 1995. The unclassified abstract from that document provides the following measures to combat terrorism:

- Reduce Vulnerabilities
- Deter
- Respond

Responding to terrorism involves instruments that provide crisis and consequence management. “Crisis Management” refers to measures to identify, acquire, and plan the use of resources needed to anticipate, prevent, and/or resolve a threat or act of terrorism. Crisis Management is predominantly a law enforcement response. Consequence Management refers to measures to protect public health and safety, restore essential government services, and provide emergency relief to governments, businesses, and individuals affected by the consequences of terrorism. Consequence Management is generally a multifunction response coordinated by emergency management.

PDD-39 assigned the lead agency role for consequence management to the Federal Emergency Management Agency (FEMA). While the FBI retains the lead during the crisis management phase, FEMA takes the lead to resolve the WMD hazard during the consequence management phase with the support of all National Response Plan (NRP) signatories, which includes the Coast Guard. FEMA policy is to use NRP structures to coordinate all federal assistance to state and local governments for consequence management.

In accordance with the NRP, there is specific tasking to the federal agencies supporting technical operations. The Department of Defense, Department of Energy, Department of Health and Human Services, and the Environmental Protection Agency (EPA) all have roles and responsibilities. **The Coast Guard’s involvement is aligned with the direction given to the EPA.**

To implement the provisions of PDD-39, the U.S. Government Interagency Domestic Terrorism Concept of Operations Plan or CONPLAN of 2001 states the following responsibilities to the EPA and the Coast Guard: “EPA serves as a support agency to the FBI for technical operations and a support agency to FEMA for consequence management. EPA provides technical personnel and supporting equipment to the LFA during all aspects of a WMD terrorist incident. EPA assistance may include threat assessment, DEST and regional emergency response team deployment, LFA advisory requirements, technical advice and operational support for chemical, biological, and radiological releases. EPA assistance and advice includes threat assessment, consultation, agent identification, hazard detection and reduction, environmental monitoring; sample and forensic evidence collection/analysis; identification of contaminants; feasibility assessment and clean-up; and on-site safety, protection, prevention, decontamination, and restoration activities. EPA and the United States Coast Guard (USCG) share responsibilities for response to oil discharges into navigable waters and releases of hazardous substances, pollutants, and contaminants into the environment under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). EPA provides the pre-designated Federal On-Scene Coordinator for inland areas and the USCG for coastal

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areas to coordinate containment, removal, and disposal efforts and resources during an oil, hazardous substance, or WMD incident.”

As directed in PDD-39, the EPA will activate technical operations capabilities to support the Federal response to an act of WMD terrorism. EPA may coordinate with individual agencies identified in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) to use the structure, relationships, and capabilities of the National Response System as described in the NCP to support response operations. If the NCP is implemented:

The Hazardous Materials On-Scene Coordinator under the NCP will coordinate, through the Emergency Support Function 10 (ESF-10) – Hazardous Materials Chair, the NCP response with the FEMA official, who is responsible under PDD-39 for on-scene coordination of all federal support to state and local governments.

The NCP response may include threat assessment, consultation, agent identification, hazard detection and reduction, environmental monitoring, decontamination, and long-term restoration (environmental cleanup) 2.

To adequately support the above response scheme, the ESF-10, Hazardous Materials Annex to the FRP was rewritten in April 1999 to further delineate the Coast Guard’s role within the coastal environment.

The ESF-10 revision states that the EPA will serve as the National Chair and lead agency for each activation of ESF-10, with close coordination with the Coast Guard in geographic locations under Coast Guard jurisdiction. EPA will be the ESF-10 Regional Incident Chair in preparedness and for ESF-10 activations in response to a disaster or emergency affecting areas under EPA jurisdiction. The Coast Guard will be the ESF-10 Regional Incident Chair for a disaster or emergency affecting only the areas under Coast Guard jurisdiction3.

Historically we have seen the NRP activated to support and augment a state’s response to natural disasters (e.g., hurricanes, floods, etc.). In these instances the affects of the disaster are usually widespread and have involved inland as well as coastal areas. Unlike most natural disasters (except tornadoes and earthquakes), a terrorist generated WMD incident in most cases would develop quickly with little time to prepare and mobilize. Additionally, a WMD incident has the greater capability of being much localized within a specific area or region. A WMD incident may occur solely within the coastal region where the Coast Guard could find itself as the Regional Incident Chair of ESF-10 and the lead agency responsible for enacting the provisions of the NCP to support the consequence management phase of the federal response.

As stated within the NRP, there is also the expectation that the initial response to a WMD incident, where an overt threat is not known, would be addressed unknowingly by responders as an industrial or private sector spill or release. This could also place the Coast Guard and other Area Committee stakeholders as the initial responder.

In both of the above instances, the Coast Guard may be looked upon as the initial federal lead to mitigate a WMD incident in areas where we have jurisdiction. As we have experienced since September 11, 2001, most localized potential WMD incidents will not result in a disaster declaration leading to an activation of the NRP or Stafford Act. As the federal On-Scene Coordinator (OSC), the EPA or Coast Guard then becomes the lead federal agency for “Consequence Management” in accordance with the NCP.

Area Committee participating agencies and organizations may provide policy on the use of its people, resources, personal protective gear requirements, and force protection during a response to WMD where assets may be exposed to chemical, biological agents, radiological substances, or explosives. Although the substances and origin of WMD events may be different, our response posture should be the same as for any hazardous substance response. Whether we respond as part of ESF #10 upon a disaster declaration and activation of the NRP or in the absence of a disaster declaration in accordance with the NCP, our response posture remains unchanged. We will coordinate and use the multitude of available expertise from federal, state, local, and private sector entities in accordance with Unified Command (UC) and Incident Command System (ICS) principles and doctrine. Common sense may rule the day in

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some circumstances, however many of the WMD hazards will not be immediately known during an initial response. Initial responders receiving incident notification should be trained in detecting the signs of a potential WMD event. Federal, state, and local health officials/hazmat teams and National Response System (NRS) Special Forces should address sampling and analysis protocols and Personal Protective Equipment (PPE)/decontamination requirements.

WMD incidents present an increased risk due to the intention to cause harm, the nature of the agents, and the increased number of responding entities and the impact to those responders. Those responders not specifically trained or authorized entry by the Incident Commander should suspend active field response and withdraw all resources to a safe distance until the Incident Commander determines “SAFE TO RESPOND” indicating there is no risk of exposure to WMD agents for responders and such operations can be safely conducted under normal operating procedures.

An act of biological, chemical, radiological, explosion, or other forms of terrorism might range from dissemination of anthrax aerosol spores to food product contamination and predicting when and how such an attack might occur is not possible. However, the possibility of terrorism should not be ignored, especially in light of events during the past 10 years (e.g., World Trade Center and Pentagon attacks, recent anthrax incidents in Washington, D.C., New York City, and Florida, the sarin gas attack in the Tokyo subway, and the discovery of military bioweapons programs in Iraq and the former Soviet Union). Preparing to address this threat is a formidable challenge, but the consequences of being unprepared could be devastating.

The Consequence Management infrastructure must be prepared to prevent illness, injury, and environmental damage that would result from terrorism, especially a covert terrorist attack. As with emerging infectious diseases, early detection and control of biological, chemical, or radiological attacks depends on a strong and flexible pollutant/contaminant response system at the local, state, and federal levels. In addition, first responders and primary health-care providers throughout the United States must be vigilant because they will probably be the first to observe and report unusual illnesses or injuries.

**9820 Pre-Response/Removal**

**9821 Discovery**

Most WMD events may become evident to initial responders by third party reports, observations, and notifications. However, with increased patrols and other port activity, the likelihood of personnel discovering a WMD incident or situation becomes greater. Personnel should be vigilant and aware of the detection possibilities stated.

If at any time a responder suspects or determines that an emergency incident is a WMD incident, they should ensure that the National Response Center (NRC) and the appropriate agencies are immediately notified. Using federal, state and local expertise as needed, The Incident Commander or Federal On-Scene Coordinator (FOSC) will assess and determine areas that are "Safe to respond". To facilitate response efforts, the "Safe to Respond" determination may be applied to specific geographic areas. The intention is to use site characterization methods and terminology, i.e., hot zone, cold zone, etc., similar to those used in a hazmat response. A basic rule for any WMD event involving chemical, biological, radiological, or conventional means, is not to touch the suspected source, isolate evacuate people, and begin notifications.

**9822 Notification**

As soon as biological, chemical, radiological, conventional, or other WMD event is suspected, the following notifications should be made immediately:
• **NRC Notification at 1-800-424-8802.** The National Response Center will notify the appropriate technical assistance from federal agencies, for example FBI, EPA, FEMA, the Coast Guard, the U.S. Army Soldier and Biological Chemical Command and CDC, as appropriate. The National Response Center should be notified when any new information is received.

• **Crisis Management Notification.** Contact 911 and the FBI for law enforcement assistance. The initial lead on all WMD events rests with the law enforcement (LE) agencies. The call to 911 will activate the local and state LE resources. The Federal Bureau of Investigation (FBI) is the lead federal law enforcement agency within U.S. jurisdiction for WMD events. If the event is offshore beyond U.S. Territorial Seas, the Department of State (DOS) should also be notified. The FBI and LE agencies will always make the “credible threat” determination. If credible, all WMD incidents are treated as crimes.

• **Consequence Management Notification.** The lead agency should ensure that the next series of calls are made to the emergency response agencies and organizations in accordance with local planning. The primary response agencies are further identified in the response section of this document but may include the following depending on the scenario:
  - Local/State hazmat and health departments;
  - Local/State Emergency Management Agencies,
  - Local/State Environmental Agencies;
  - Bomb squads or Department of Defense (DOD) Explosive Ordinance Detachments;
  - Department of Health and Human Services (HHS), or Agency for Toxic Substances and Disease Registry (ATSDR);
  - National Institute of Occupational Safety and Health (NIOSH) and the Occupational Health and Safety Administration (OSHA);
  - General Services Administration (GSA);
  - Nuclear Regulatory Commission (NRC) or Department of Energy (DOE);
  - Department of Agriculture (USDA);
  - National Guard Civil Support Teams;
  - Coast Guard National Strike Force;
  - Private Sector Cleanup Contractors;
  - Trustee Agencies;
  - Laboratories/Transportable Laboratories; and/or
  - Other stakeholders identified in this plan or other local plans.

### 9830 Response/Removal/Recovery Activities

#### 9830.1 General

In the event of a suspected or confirmed terrorist attack, the Coast Guard will coordinate with other federal agencies in accordance with Presidential Decision Directive (PDD) 39. PDD 39 designates the Federal Bureau of Investigation (FBI) as the lead agency for the crisis management portion of the response and charges the Federal Emergency Management Agency (FEMA) with ensuring that the federal response management (consequence management) is adequate to respond to the consequences of terrorism. Essentially Crisis Management focuses on *cause* and Consequence Management focuses on *effects.* The U.S. Government Interagency Domestic Terrorism Concept of Operations Plan or CONPLAN published in January 2001 delineates the various response relationships and strategy.
As directed in PDD-39 and supported by the CONPLAN, the EPA/CG will activate technical operations capabilities to support the Federal response to an act of WMD terrorism. EPA/CG may coordinate with individual agencies identified in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) to use the structure, relationships, and capabilities of the National Response System as described in the NCP to support response operations.

9831 Crisis/LE and Consequence Management, Response Relations, and Interaction

Crisis management is predominantly a law enforcement function and includes measures to identify, acquire, and plan the use of resources needed to anticipate, prevent, and/or resolve a threat or act of terrorism. In a terrorist incident, a crisis management response may include traditional law enforcement missions, such as intelligence, surveillance, tactical operations, negotiations, forensics, and investigations. Technical support missions, such as agent identification, search, render safe procedures, transfer and disposal, and limited decontamination are also traditional law enforcement missions that are used. In addition to the traditional law enforcement missions, crisis management also includes assurance of public health and safety.

Consequence management is predominantly an emergency management function and includes measures to protect public health and safety, restore essential government services, and provide emergency relief to governments, businesses, and individuals affected by the consequences of terrorism. In an actual or potential terrorist incident, a consequence management response will be managed by FEMA using structures and resources of the National Response Plan (NRP). These efforts will include support missions as described in other Federal operations plans, such as predictive modeling, protective action recommendations, and mass decontamination.

The following illustration delineates the response relationships created between crisis and consequence management phases of the response:

Regardless of whether a WMD event results in a federal disaster declaration, all WMD responses begin locally with local, county, and state government agencies in areas where they have jurisdiction. The federal relationship for WMD response is the same as it is for hazardous substance releases. The federal agencies fill response gaps either by providing resources, decision-making, or funding support. For the Coast Guard there may be instances, as there are for oil discharges and hazardous substance releases, where a WMD event occurs solely within federal jurisdiction (offshore and beyond state jurisdiction). In these instances, the NRP may not apply and the initial response will be by federal agencies using existing authorities.
9831.1 Credible Threat Determination

All WMD incidents connected with terrorism are considered federal crimes. The law enforcement agencies have the initial lead in each response. The FBI and local/state law enforcement must be notified. Given available evidence, statements, scenario, and intelligence the FBI/LE agencies will make the determination whether the incident is credible. As a rule, if the FBI and supporting LE agencies indicate that the incident as stated in the initial notification process is not credible, the Coast Guard FOSC will stand-down from the response. Because of the high number of potential reports, most of which are hoaxes, it is important that available resources are focused on real events. The FBI and supporting LE agencies are the final authority on credibility determinations. The FOSC should share all available and applicable information with the LE agencies to assist them in making these determinations.

- **Terrorist acts are federal crimes:** Because all terrorist acts are federal crimes, the FBI has jurisdiction in the investigation. Although the FBI will work closely with local/host nation law enforcement, they will be the primary supporting agency for the Department of State for overseas incidents.

**Notify the FBI in accordance with your SOPs:** The FBI should be notified as soon as possible when a terrorist act has occurred. In addition to getting the FBI involved in the criminal investigation aspects as early as possible; the FBI can also activate federal resources to assist in crisis and consequence management. The FBI is responsible for the WMD terrorist incident investigation. However, other federal responders and personnel may be the first on or near the scene in carrying out their respective missions. Their actions and observations may be critical to apprehending the perpetrators.

9831.2 Evidence Gathering/Protection and Initial Sampling

The FOSC may be approached by the Crisis Management agencies (FBI or local/State LE agencies) to assist in obtaining initial investigative samples to confirm their “credible threat” determination if local sampling resources are not identified or available. For coastal zone or maritime incidents, the Coast Guard FOSC should anticipate these requests. As stated above some resources are not available until a WMD substance or event has been confirmed. Local/State and private sector resources are critical during this phase and should be identified in your planning.

Initial investigative sampling may be very important to the Consequence Management agencies as well. Although the initial focus is law enforcement, there may be simultaneous health and safety issues to consider. This is especially true if victims are symptomatic or there are other overt signs to indicate a WMD substance or agent may be present. Other than local/state and private resources, the EPA, the Coast Guard National Strike Force (NSF), and the National Guard Civil Support Teams (CST) have the capability to make a hot zone entry and glean samples from the site.

9832 Command and Control

9832.1 WMD Incident / Unified Command Objectives

Primary Unified Command Objectives:

- Health and Safety of Responders
- Victim Rescue
- Community Safety and Evacuation (if necessary)
- Securing the Source of the Contaminant
• Protection of Property
• Environmental Protection and Response

Other Possible Unified Command Objectives:

• Threat Assessment
• Lead Federal Agency Advisory Requirements
• Agent Identification
• Hazard Detection and Reduction
• Environmental Monitoring
• Sample and Forensic Evidence Collection/Analysis
• Identification of Contaminants
• Feasibility Assessment and Clean-Up
• On-Site Safety
• Protection, Prevention, Decontamination, and Restoration Activities

9832.2 Incident Management

A nuclear, biological, or chemical Weapon of Mass Destruction (WMD) type terrorist incident is inherently a hazardous substance incident. As such it should be responded to under the National Response System (NRS). As applicable, consult Chapter 16 (Hazardous Substances/Materials) and Chapter 19 (Multi-Casualty Branch) of the Incident Management Handbook (IMH) regarding establishment and use of the Incident Command System when a terrorist incident precipitates a hazardous materials release and/or mass casualty.

The UC responding to an incident where terrorism is involved have to be acutely aware of the unique nature of the Federal Government’s response mechanism for these type of incidents. The UC may find them working for the Federal Bureau of Investigation (FBI) and/or the FEMA. The FBI is the Lead Federal Agency responsible for “Crisis Management” and FEMA is the Lead Federal Agency responsible for “Consequence Management”.

“Crisis Management” refers to measures to identify, acquire, and plan the use of resources needed to anticipate, prevent, and/or resolve a threat of terrorism. Crisis Management is predominately a law enforcement response. “Consequence Management” refers to measures to protect public health and safety, restore essential government services, and provide emergency relief to governments, businesses, and individuals affected by the consequence of terrorism.

Consequence Management is usually a multifunction response coordinated by FEMA, at the Federal level, in conjunction with and support of the State and local government’s emergency response and recovery efforts.

It is FEMA’s policy to use the National Response Plan (NRP) structures to coordinate all Federal assistance to state and local governments for consequence management activities. Consult the NRP’s Terrorism Incident Annex dated April 1999 for further guidance.
If an incident occurs without warning that produces major consequence and appears to be caused by an act of terrorism, then FEMA and the FBI will initiate consequence management and crisis management actions concurrently. If the President directs FEMA to implement a Federal consequence management response, then FEMA will support the FBI as required and will lead a concurrent Federal consequence management response. For the UC, the reporting relationships during a WMD terrorist incident would look like the following:

Although the FBI may utilize a management organization different from NIIMS/ICS, the Coast Guard Incident Commander may carry out their response operations using the standard ICS organization. However, Coast Guard Incident Commanders should be prepared to work in a management system other than ICS and adjust their organization accordingly.
Responding to a Weapons of Mass Destruction (WMD) Incident

A nuclear, biological, or chemical WMD type terrorist incident is inherently a hazardous substance incident. As such it should be responded to under the NRS. With the exception of the U.S. Coast Guard National Strike Force (NSF), upon notification of WMD event, USCG policy is to stay clear of the contaminated area and to provide command, control and support only. NSF Strike Teams are the only units within the Coast Guard who are trained and have a mission to respond to chemical incidents for either Coast Guard or Environmental Protection Agency Federal On-Scene Coordinators. For personnel responding to WMD events, certain guidelines should be followed:

- Be aware of possible secondary devices, including explosive, radiological, chemical and biological. Be cognizant of surroundings, especially of containers, or packages that appear misplaced. A tactic terrorist’s use involves setting off a device designed to draw in first responders, and then setting off a secondary device to maximize casualties.

- Ask qualified authorities, typically the FBI, if the area has been cleared of secondary devices.

- If the contaminant is determined to be biological, exercise extreme caution and avoid contact.

- Immediately initiate personal decontamination procedures if member feels she/he has been contaminated.

- Be aware of victims. Some victims become agitated and fearful. They may attempt to leave the hot zone and/or physically contact rescue personnel. Wear protection (i.e., gloves, etc.). Victims must be contained if risk of further contamination is to be prevented.

- Attempt to talk to victims. Inform them that help is on the way and try to keep them calm. Explain the procedures for decontamination (decon); what personnel will perform the decon, where the decon will take place, when the decon will begin, and how the decon will proceed (i.e. mothers with children, etc.).

- Have all able victims move to a safe centralized location within the hot zone, away from the actual mishap site to reduce chances of further contamination.

- Again, be aware that in a WMD incident terrorists generally have a singular purpose and that is to cause fear, death and destruction. A defensive stance should always be maintained for a WMD incident.
**Response Management System.** The following is an example schematic of a potential WMD Unified Command Response Management System.

**Weapons of Mass Destruction Response**

**Unified Command Multi-Branch Organization**

- **FOSC/SOSC**
- **Other Federal Agencies**
- **Other State Agencies**
- **Other Local Agencies**

**Staging Areas**
- **Operations Section**
- **Finance Section**
- **Logistics Section**
- **Planning Section**

**Medical Unit**
- **Medical Branch**
- **Law Enforcement Group**
- **Air Operations Branch**

**Technical Specialists**
- **Sampling Group**
- **Entry Group**

**Disposal**
- **Site Access Group**
- **Transportation Group**

**Decontamination Group**
- **Medical Group**

**Helibase Manager**
- **Helicopter Coordinator**

**USCG Helicopter**
- **Private Helicopter**

**Situation Unit**
- **Resources Unit**
- **Documentation Unit**
- **Technical Specialist Unit**
- **Human Health Assessment**
- **Sampling Protocol**
- **Clean-up Technical**
**9832.3 Regional and National Incident Commands.**

**General.** It is envisioned that during a large or multiple WMD incident(s) that a Regional Incident Command (RIC) or a National Incident Command (NIC) structure may have to be implemented to oversee the management of the event specific to strategic assistance and resolving response resources issues.

**RIC/NIC during a FEMA/NRP Response to a WMD Event.** The implementation of the RIC/NIC management concept would be similar to a hazardous substance response; however the action would be coordinated under Emergency Support Function (ESF) #10. The RIC/NIC Liaison Officer will ensure that a communications/information conduit is established between the RIC/NIC and the ESF #10 Chair and Disaster Field Office (DFO) ESF #10 personnel. The RIC/NIC actions will support the established ESF #10 Mission Assignments and the reporting and administration needs of ESF #10 and FEMA will remain unchanged. We would not anticipate the need for any routine direct liaison between the RIC/NIC and Federal Coordinating Officer (FCO) that the ESF #10 Chair or the DFO ESF #10 staff could not address as a liaison between the two management structures. Special meetings to discuss or resolve specific response issues may need to occur between the RIC/NIC and the FEMA FCO/DFO staff. Those sessions will be facilitated by the ESF #10 Chair or DFO ESF #10 staff.

**RIC/NIC during a NCP Response to a WMD Event.** The implementation of the RIC/NIC management concept would be similar to a hazardous substance response. The details are described below.

**Regional and National Incident Commands.** In situations where there is a need for senior executive-level response coordination, command and control of an incident may include the use of a Regional or National Incident Command (RIC/NIC). The purpose of a RIC/NIC organization is to oversee the overall management of the incident(s), focusing primarily on strategic assistance and direction and resolving competition for scarce response resources. This organization does not supplant the IC(s), but supports and provides strategic direction. Execution of tactical operations and coordination remains the responsibility of the IC(s)/UC(s).

**Regional Incident Command** - A RIC is an organization activated by the District Commander to ensure coordination for Command, Planning, and Logistical matters. The need for a RIC may arise when there are multiple on-scene ICs, multiple Coast Guard ICs and/or when there is heavy demand for Coast Guard resources from other agencies such as the Federal Emergency Management Agency (FEMA). The RIC will determine which critical resources are sent to which incident and determine priorities for their assignment.

**National Incident Command** - A NIC is an organization that is functionally similar to the Relic and is used if the incident requires the direct involvement of the most senior Coast Guard Operational Commander(s).

**Determination to Activate a Regional or National Incident Command.** A District Commander, Area Commander, or the Commandant can determine when an incident(s) is of such magnitude, complexity, or operational intensity that it would benefit from the activation of a RIC/NIC. Factors to consider when deciding to activate a RIC or NIC include, but are not limited to:

- Complex incident overwhelming local and regional Coast Guard assets;
- Overlapping Coast Guard districts;
- An incident that crosses international borders;
- The existence of, or the potential for, a high level of national political and media interest; or,
- Significant threat or impact to the public health and welfare, natural environment, property, or economy over a broad geographic area.

When the decision is made to activate a RIC/NIC, the following actions should occur:
• The District Commander will activate a RIC or, the Area Commander or the Commandant may designate a NIC.

• A deputy RIC/NIC will be designated with clear succession of command authority.

• If an incident(s) is multi-jurisdictional, the RIC/NIC shall establish a Regional or National UC. Regional or National UC representatives will typically consist of executives possessing the highest level of response authority as possible. For efficiency of decision-making within the UC, the RIC/NIC shall determine the proper make-up and number of representatives.

Note: There may be incidents where it is beneficial to activate a RIC or NIC, but the Coast Guard is not the lead response agency. In these cases, the RIC/NIC will coordinate with the lead agency’s response organization and, if agreed upon, form a UC.

9770 OPLAN - Appendix 29 – Terrorism/Weapons of Mass Destruction. Refer to the Seventh Coast Guard District’s 9770 OPLAN Appendix 29 to determine the implementation and staffing of the Regional Incident Command (RIC) or the National Incident Command (NIC) structure for terrorism and WMD response.

9832.4 WMD Tiered Response Phases for Environmental and Health/Safety Issues.

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<tr>
<th>Tier</th>
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| Tier 1 - Local Response for Environment and Health Safety | IC: Local Fire Chief or Hazmat Team Leader  
ACP Action: Provide support for local response at the request of the IC in way of technical expertise, resources, and/or funding. Focus is to fill response gaps identified by IC. |
| Tier 2 – Environmental and Health/Safety Response Under the NCP | IC: Federal On Scene Coordinator (FOSC)  
UC: FOSC, State/Local OSC, and/or Property Owner/Operator  
ACP Action: Support entire response effort. Refer health issues to health agencies. |
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<th>Tier</th>
<th>Tier Description</th>
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| Tier 3 – Environmental and Health/Safety Response Under the National Response Plan (NRP) | **Consequence Management Lead:** FEMA  

**ESF #10 Action:** Focus on environmental issues surrounding oil, hazardous substances, bio-hazards, etc.  

**ACP Action:** Response on the ground is supported similar to a NCP hazmat response. Response funded by FEMA.  

**ESF #8 Action:** Refer health, medical, and safety issues to ESF #8. |

### 9832.5 Crisis Management and Consequence Management Interoperability

It is important that both the crisis and consequence management responders complement each other during response. Communications and sharing of tactical operations and strategies is vital to a coordinated response effort.

The FBI may create a Joint Operations Center (JOC) to support and manage crisis management resources. Consequence management agencies and organizations would become participants within the JOC. Proper liaison with the LE mission during the initial response is extremely important to ensure LE needs is known and health and environmental priorities are addressed. The following is an example of an FBI Lead JOC:
FEMA is designated the lead agency for Consequence Management. In accordance with PDD-39, the EPA/CG will activate technical operations capabilities to support the Federal response to an act of WMD terrorism. EPA/CG may coordinate with individual agencies identified in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) to use the structure, relationships, and capabilities of the National Response System as described in the NCP to support response operations. Without the activation of FEMA and the NRP under a disaster declaration, the expectation is that the Federal On-Scene Coordinator (FOSC) will take the lead for consequence management to respond to and mitigate the impacts of a WMD incident to human health and welfare and the environment under the authorities designated within the NCP. The health agencies are expected to take the lead for WMD substances or agents causing only impacts to health.
9834 Progression of Response for Environmental Health/Safety Issues

Report of a potential WMD Biological, Chemical, Radiological, or Conventional Event

Contact the FBI and Local/State LE – 911

FBI Determines Credible Threat?

Yes

Initial Actions Taken

O/S:
- Secure Scene
- Back-off and avoid exposure
- Determine people casualties and symptoms from a distance if possible
- Wait for LE

Crisis Management

As part of the Criminal Investigation FBI/LE may:
- Initiate sampling to verify substances;
- Notify bomb/explosive responders to address conventional devices;
- Control site access;
- Question witnesses and carryout other LE functions; and/or
- Call in hazmat teams, health/environmental responders, etc. to assist in securing/containing perceived threats.

Response Ends

No

Consequence Management

Although Crisis Management has the lead, if the threat is credible, health & environmental response agencies would normally mount a simultaneous response, especially if o/s people are threatened or symptomatic:
- Local hazmat teams, health departments, bomb squads, etc. would respond dependent on scenario;
- If local and State resources request federal assistance or incident occurs solely in federal jurisdiction federal agencies would respond – Lead Agency would be the applicable OSC in accordance with the NCP; or
- FOSC may assist FBI/LE with coordination of initial investigative sampling and scene management.

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Substance or WMD Incident is Confirmed?

Yes

Consequence agencies respond to mitigate potential health and environmental threats especially if people are symptomatic or there are overt WMD effects. Consider:

- Containing affected area;
- Evacuate unaffected people;
- Record and track affected people; and/or
- Secure WMD source.

FOSC allows local and private responders to address issues if capable and provides oversight.

No

FBI/LE continues investigation and manages evidence. Crisis agencies should allow Consequence agencies access to mitigate potential health and environmental threats.

Response Ends

Investigation Continues

Yes

FBI/LE continues investigation and manages evidence. Crisis agencies allow Consequence agencies access to mitigate health and environmental threats.

Response Ends

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FOSC allows local and private responders to address issues if capable and provides oversight.

No

FBI/LE continues investigation and manages evidence. Crisis agencies should allow Consequence agencies access to mitigate potential health and environmental threats.

Response Ends

Substance or WMD Incident is Confirmed?

Yes

Consequence agencies respond to mitigate potential health and environmental threats especially if people are symptomatic or there are overt WMD effects. Consider:

- Containing affected area;
- Evacuate unaffected people;
- Record and track affected people; and/or
- Secure WMD source.

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Response Ends

Substance or WMD Incident is Confirmed?
9835 Personnel and Resource Protection

Personal Protective Equipment

Responders should not be in the Hot or Warm Zone without the appropriate level of protection. Responders should always enter a suspected contaminated area with the level of protection that will ensure their survival. At the same time, they would not want to over-burden themselves with protective equipment that is nice to have, but may hinder their mission because of the heat stress or due to its weight or bulk. Therefore, they will have to know what kind of agent they are dealing with in order to make informed decisions as to the level of protection required to ensure they do not become a victim, either as a result of the chemical agent or from exhaustion.

- Consequently, initial entry into the Hot Zone should be in Level A, with a possibility of downgrading to a lower level of protection after the agent is identified, the concentration of the agent is determined to be below IDLH, and/or the Incident Commander authorizes a lower level of protection based on risk assessment.

- A response team requires maximum respiratory protection when entering atmospheres containing unknown substances, or known substances in unknown concentrations. If you are unsure of the agent employed, eliminate any risk by entering the area in Level A, as required by OSHA.

- In addition, unless the responder is certain they are not dealing with a blister, nerve agent, or some other hazardous substance that may be absorbed (i.e., dirty bombs, haz waste, etc.), they need to protect their skin from chemical agent liquids and aerosols.

- Liquid chemical agent can be transferred to a responder in numerous ways, including:
  1. Helping victims,
  2. Helping other responders,
  3. Moving contaminated debris,
  4. Handling contaminated objects,
  5. Walking through contaminants, and
  6. Over-spray from victim decontamination operations (e.g., while hosing down victims).

- Blister agents (e.g., mustard and Lewisite) are designed to injure body tissue, both internally and externally. In sufficient concentration, mustard agent vapors will destroy exposed skin tissue. Therefore, the hazard presented by blister agents is both dermal and respiratory, requiring maximum protection (Level A). With an accurate determination of agent concentration in the atmosphere, a decision may be made to downgrade the protection to Level B if it is determined that no significant splash hazard exists.

- Nerve agents (e.g., Sarin, Soman, and VX) present both a respiratory and a dermal hazard. In liquid form, nerve agent droplets will be absorbed into the skin. In their vapor state, they will enter the body through the lungs and destroy the body’s ability to produce cholinesterase, the muscle-controlling enzyme. Consequently, initial entry into an area suspected of nerve agent contamination should be in Level A to ensure full protection of both the respiratory tract and the skin. With an accurate determination of agent concentration in the atmosphere, a decision may be
made to downgrade the protection to Level B if it is determined that no significant splash hazard exists.

- Choking agents (e.g., phosgene and chlorine) enter the body through the lungs, and not through the skin. Consequently respiratory protection is the primary concern to protecting against these agents. However, in high enough concentrations, choking agents may also present a skin hazard (skin burns caused by hydrolyzation of the agent to hydrochloric acid). Therefore, initial entry in Level A is prudent. Choking agents are reasonably non-persistent, so the level of protection may be downgraded to Level C as soon as the concentration in the affected area is determined to be below IDLH, assuming that the respirator to be used has been proven to protect against that particular agent.

- Blood agents (e.g., hydrogen cyanide and cyanogens chloride) also enter the body through the respiratory tract or through mucous membranes, not through the skin. However, in high enough concentrations, blood agent could mix with skin moisture to form an acid, and thereby cause skin irritation. In addition, situations where a significant amount of agent is in liquid form (such as a 5,000-gallon tanker truck or 30,000-gallon railroad tanker) may present a significant splash hazard. Level A provides maximum protection for both the respiratory system and the skin. Since blood agents are extremely volatile, they will dissipate quickly in the air, probably by the time measurements are taken to determine the concentration of the agent. If the agent vapor concentration is below IDLH, the level of protection required may be downgraded to Level B or C, but like choking agents, only if the respirator to be used is known to protect against that particular agent and no splash hazard exists.

- Biological agents enter the body primarily through the respiratory tract, although they can also enter through broken skin, vector bites, ingestion, or through other body openings. Respiratory protection is the key to protecting against these agents. An air-purifying respirator (with a P-100 filter) provides respiratory protection against airborne biological agents.

- Radiologically contaminated materials also present a respiratory hazard as well as a skin contamination problem, since radioactive dust particles can be inhaled. As with biological agents, an air-purifying respirator with filter provides respiratory protection against the inhalation of radioactive dust particles.

- **Note:** Accurate identification of WMD agents and their concentrations is not possible without sophisticated detection instruments. These instruments may not be available until a HAZMAT team or other specialized response team arrives at the scene and begins monitoring. The recommendation to downgrade PPE levels is usually made by the Incident Commander. The Incident Commander makes the decision based on a risk assessment of the situation. Operations Level responders supporting detection/monitoring activities, including downwind surveillance, may be able to provide important information to aid the Incident Commander’s decision.
Safe Distance/Avoid Contact. Most initial responders, including Coast Guard members (exceptions would be firefighters, hazmat teams, NSF, etc.), are trained at the awareness level and most likely have little, or no, personal protective equipment. Their best protection at this level is contamination avoidance. Although “safe distances” will be set by the Incident Commander based on incident specific information and dynamics the following are some general guidelines:

- **Move upwind:** Move upwind from the release.
- **Move upgrade:** Move upgrade from the release for chemical agents. Most of the chemical agents are heavier than air and will move downgrade, especially in still air. Also, any runoff from decontamination operations will flow downgrade.
- **Avoid contact with contaminated people and things:** Without proper protective clothing, you should avoid contact with contaminated people and things.

Biological Self-Protection. Every patient with respiratory complaints (fever, cough, and shortness of breath) and open wounds are potentially infectious. The following are some general guidelines:

- Standard precautions, airborne precautions, droplet precautions, and contact precautions may include wearing eye splash protection, splash gowns, P-100 (particulate air purifying respirator cartridge) respiratory protection, and gloves. An SCBA or a protective mask with P-100 filters offers good respiratory protection.
- Intact skin and regular clothing provides good protection against most biological agents. Gloves and liquid resistant clothing provide additional protection.

Safety of Responders. Responder safety is paramount.

- **PPE:** All personnel who come in contact, or have the potential to come in contact, with the exposed casualties must wear protective clothing and respiratory protection.
  
  OSHA Level B chemical protective clothing can provide adequate protection for responders operating the decontamination stations in the warm zone.

  If available, wear rubber gloves, but not latex (butyl or neoprene are acceptable).

  - **Minimize contact:** Minimize direct contact with the casualties and avoid any liquid contamination.

  - **Monitor self and buddy:** Ensure all responders are aware of the signs and symptoms of exposure. Monitor yourself and your buddy for these, both during and after decontamination.

  - **Consider yourself contaminated:** From the moment you enter the decontamination area or come into contact with a casualty, consider yourself contaminated.
**Actions to Protect Others.**

**Site Security:** Within the limitations of their PPE, responders need to establish site security early. Control ingress to and egress from the site. Controlling the site will help to contain and avoid the spread of contamination. Responders should be aware that the perpetrator(s) may still be in the area. They may be one of the victims, or they may be observing the results of their actions. Always be alert for secondary devices.

**Communicate the hazard warning to others:** Include involvement of 911 dispatchers in the communications chain so that they can tell other responders about the hazards. Inform dispatch of local wind direction, ingress routes, staging areas, and other information that can be passed to follow-on responding units.

**Actions for Handling Mass Casualties/Fatalities.**

- **Observe Signs and Symptoms:** Until detection and identification equipment arrives on the scene, the only indication that initial responders will have of the hazard they are facing will be from the signs and symptoms displayed by the victims. Do not make physical contact with the victims and/or fatalities as cross contamination may result. Attempt to identify the magnitude of the incident by estimating the number of casualties and/or fatalities.

- **Direct Casualties to Safe Areas:** Direct the casualties upwind and upgrade from the incident site. Without the proper PPE, responders will not be able to assist non-ambulatory victims.

- **Initiate Emergency Decontamination of Casualties:** Attempt to get the casualties to remove their clothing down to their underwear. If available, spray water on the casualties to help remove contamination, however, remember to cover victims for environmental and modesty concerns.

- **Notify Chain of Command:** Report the signs and symptoms of the victims, location of casualty holding areas, and any other actions taken to the chain of command.

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**9836 Health and Safety Plan**

The ICS Compatible Site Safety and Health Plan are designed for safety and health personnel that use the Incident Command System (ICS). It is compatible with ICS and is intended to meet the requirements of the Hazardous Waste Operations and Emergency Response regulation (Title 29, Code of Federal Regulations, and 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 chemical spills, the plan can be used for all hazard situations including WMD response. Refer to the generic ICS formatted Site Safety Plan.

**9837 Sampling and Other Technical Operations**

The National Response Team has developed “Response Guidance for Anthrax” which contains good information on sampling procedures for anthrax based on lessons learned from recent responses. We expect other efforts to address additional WMD substances as time progresses.

The following agencies are available to assist with sampling of on-scene an active WMD incident. However, in the initial phases where a WMD substance has not been confirmed, the sampling and analysis options are limited to local/state resources, the NSF, EPA, National Guard Civil Support Teams, and private sector sources.

**Active Sampling Assistance:**

- Local/State Environmental or Health Agencies and Hazmat Teams;
• U.S. Environmental Protection Agency (EPA);
• Occupational Safety and Health Administration (OSHA);
• National Institute for Occupational Safety and Health (NIOSH);
• Centers for Disease Control (CDC);
• Coast Guard National Strike Force (NSF);
• National Guard Civil Support Teams;
• Department of Defense; and
• Private Sector Contractors.

**Sampling Analysis/Laboratory Assistance:**

• Local/State Environmental or Health Agencies;
• Centers for Disease Control (CDC);
• U.S. Department of Agriculture (USDA) – Agricultural Research Service;
• Department of Defense; and
• Private Sector Labs.

Refer to the response resource section for contact information on various assets that may be available to support the FOSC/UC.

**Initial Investigative Sampling.**

**FBI/LE Request.** The FOSC may be approached by the Crisis Management agencies (FBI or local/State LE agencies) to assist in obtaining initial investigative samples to confirm their “credible threat” determination if local sampling resources are not identified or available. For coastal zone or maritime incidents, the Coast Guard FOSC should anticipate these requests. As stated above some resources are not available until a WMD substance or event has been confirmed. Local/State and private sector resources are critical during this phase and should be identified in your planning.

Initial investigative sampling may be very important to the Consequence Management agencies as well. Although the initial focus is law enforcement, there may be simultaneous health and safety issues to consider. This is especially true if victims are symptomatic or there are other overt signs to indicate a WMD substance or agent may be present.

**9838 Containment/Decontamination/Clean-up**

**Scenario Development.** Based on scenarios developed by the Area Committee, the local, state, and federal response infrastructure will be able to identify the strategies and tactics necessary to mitigate the environmental and health/safety issues surrounding a WMD incident. The following issues should be addressed:

• Primary Concerns (i.e., population, responders, environmental, economic, etc.);
• Determination of the Agents or Substances (i.e., the chemical, biological, or radiological characterization, hazards, reactivity concerns, PP, etc.);
• Notifications;
• Security Issues;
• Health and Safety Issues;
• Initial Survey Actions and Observations;
• Response Needs;
• Further Survey, Sampling, Analyses, and Monitoring Needs;
• Potential Effects; and
• Response and Cleanup Recommendations (i.e., What are response and cleanup end points?)

**General Information.** One of the first priorities after a WMD incident is agent decontamination and containment. The speed and organization of the response team, the establishment of control around the incident site, and the timely application of decontaminant will be the keys to success. We will discuss how to accomplish such a response by focusing on the differences between HAZMAT incidents and incidents involving WMD agents.

**Decontamination Deltas.** There are several differences, or deltas, between decontamination procedures for HAZMAT incidents and WMD incidents. The following should be considered:

- **Time is critical:** Minimizing the duration of time that casualties are in the hazardous environment is critical. Since clothing and exposed skin may be contaminated with liquids, vapors, or even particles, it is important to remove these from the casualty so that exposure time is minimized and the possibility of further inhalation or ingestion is minimized.

- **Higher toxicity:** Increased risk to the responders, victims, and onlookers may require increasing zone distances, frequent monitoring for symptoms, and higher levels of PPE.

- **Large number of victims:** You may be required to control, decontaminate, triage, and track hundreds or thousands of people at the site.

- **Scene control:** A WMD incident may involve a larger area, mass casualty situation with numerous responders who all want to help, and a huge media response seeking information on the incident.

- **Resource intensive:** More personnel and material will be required than are normally available. This drives the need to do more contingency planning before you are faced with the situation.

- **Crime scene evidence preservation:** A HAZMAT incident site is generally not a federal crime scene. In addition to decontaminating the area, evidence must be preserved for eventual use in investigating, apprehending, and prosecuting the perpetrator(s).

**Decontamination Levels.** There are three levels of decontamination involved: emergency, definitive, and technical. These combine to cover the rapid decontamination of victims, secondary decontamination, and the deliberate decontamination of the responders and equipment.

- **Emergency decontamination:** Emergency decontamination is employed to save the lives of potential victims primarily by first removing contaminated clothing, then removing the agent hazard from the skin by washing off or neutralizing the agent on the skin. Additional emergency decontamination set-ups may be required at supporting medical facilities away from the incident scene to take care of self-referrals who left the incident before responders gained control.
• **Definitive decontamination:** A follow-on decontamination procedure is normally performed at medical facilities to ensure that all body surfaces are free of any residual contamination.

• **Technical decontamination:** Technical decontamination is performed to remove or neutralize all contamination from emergency responders, their equipment, and contaminated facilities or areas in a deliberate fashion.

• **Responder decontamination:** Technician Level responders focus on both emergency mass casualty decontamination of victims and technical decontamination of personnel. Although HAZMAT technicians may execute decontamination, it is more likely that they will supervise the Operations Level responders as they perform mass decontamination.

**Emergency Self-Decontamination.** Immediately following exposure to WMD agents, responders should perform emergency self-decontamination.

• **Wet or Blot:** For radiological and biological particulate contamination, wetting down exposed surfaces will help prevent the contamination from re-suspending in the air. For chemical liquid contamination, carefully blot the agent off of exposed skin immediately.

• **Strip:** Removing all the clothing is the best solution, without liquid contamination, stripping down to underwear is a reasonable alternative.

• **Flush:** Flush the affected area with large amounts of water. While any water is better than no water, best results for agent removal should be high volume low-pressure.

• **Cover:** Cover yourself for environmental concerns, such as sun exposure or hypothermia.

• **NOTE:** The purpose of emergency self-decontamination is to remove contaminated material from yourself after you have been exposed. Bear in mind that due to the nature of biological and radiological materials, you may be unaware at the time of exposure that you have been contaminated. Therefore, self-decontamination may not be necessary.

**Emergency Mass Casualty Decontamination (MCD) Principles.** Consider the following principles when performing emergency decontamination of mass casualties:

• **Setup.**

  **In Warm Zone, near Hot Zone:** Set up the decontamination lanes in the Warm Zone near the Hot Zone, orienting the exit point to extend away from the Hot Zone. This will limit the traffic of victims into the hazard area and reduce their potential for additional exposure.

  **Upwind, upgrade:** Establish the shower point upwind and upgrade of the Hot Zone. The water runoff and any vapors from contamination will tend to flow back into the Hot Zone.

• **Water:**
Large volume, low pressure: You should use copious amounts of water. Physical removal is the primary method of decontamination, and the more water, the better.

- **Control runoff:** Consider the direction of the run-off to prevent cross contamination between lanes.

  **Safety of Life.** Saving lives through rapid decontamination is the priority. Control the run-off to the extent feasible, and know where it is going and that it will not flow into clean areas or cause additional casualties.

  **Isolate and Confine.** If possible, and if time and resources allow, confine the run-off to an isolated area. This is more critical for radiological materials, which are not neutralized by decontaminants.

  **Sewers.** Notify the sanitary waste station and other locations downstream if the run-off enters the sanitary, sewer, or storm drain systems.

  **Chemical Agents.** For chemical agents, some liquid agents will be hydrolyzed by the water and will not present a long-term hazard downstream. Mustard and VX are notable exceptions; however, they will be very diluted by the large volumes of water.

  **Biological Agents.** For biological agents, downstream contamination will vary, depending on the agent and how it survives in treated water. However, biological agents will not present a hazard in water unless the water is ingested or enters the body through cuts, abrasions, or other orifices.

  **Radiological Materials.** For radiological materials, there may be hot spots downstream which present a radiation hazard where the materials have collected as sediment and become concentrated.

- **Shelter:**

  **Adverse Weather.** A “cold shower” will chill the victims, even in warm weather. Plans should be developed for providing shelter and cover after decontaminating victims.

  **Modesty.** The television telephoto lenses can capture embarrassing views of people from a considerable distance and lessen the willingness of the asymptomatic victims to cooperate. A quick modesty cover can be erected at the undressing point and continue past the shower points.

- **Emergency MCD Process.** Emergency decontamination of WMD agents is a 4-step process.

- **Blot or wet:**

  **Chemical Agents.** For chemical contamination, carefully blot the agent off exposed skin immediately. Do not rub, as this will only increase the potential spread and penetration of the agent. Clothes may be used to blot contamination from the skin once they have been carefully checked for contamination.

  **Biological Agents.** For contamination by biological agents or radioactive
materials, wetting down the exposed surfaces first will help prevent the contaminant from re-suspending in the air.

- **Strip**: Strip off all of the clothing down to the undergarments. This will remove approximately 80% of the contamination. Nylons or pantyhose should be removed, since they can hold a large amount of liquid or vapor close to the skin and cover a significant amount of skin.

- **Flush**: Flush the affected area with large amounts of water.

- **Cover**: Provide cover for decontaminated victims to prevent hypothermia, and for modesty.

  Get blankets, towels, sheets, or tablecloths from local stores, hotels, hospitals, or other nearby facilities.

  Disposable ponchos, coveralls, or cut up salvage covers can serve as cover for victims.

**On-Scene Situation Organization and Planning.** WMD agents were designed to be more toxic than other hazardous materials, and as such, present some unique challenges:

- **Zone adjustment, increased distances**: The Hot and Warm Zone locations must be periodically reassessed to ensure liquid contamination is contained within the Hot Zone and that decontamination efforts are within the Warm Zone. Run-off and changes in the wind may require alteration of zones or relocation of decontamination corridors. The area should be large enough to handle several decontamination lanes. These include segregated lanes and, as equipment is available, multiple lanes for each group of victims.

- **Monitor warm zone, decontamination sites**: Monitor the site continuously for the presence of WMD agents, as even small amounts of agents can cause additional casualties. If contamination is found to have spread, neutralize it or isolate the area.

- **Integrate life saving and decontamination procedures**: Closely evaluate resources during size-up to integrate EMS and decontamination activities. Some lifesaving procedures may have to be performed during decontamination or within the decontamination corridor, especially for the symptomatic and non-ambulatory victims.

**Emergency Mass Casualty Management.** Isolate the victims and other potentially exposed people.

- **Communicate directions**: Communicate the need for assistance and what these people must do. The following suggestions are provided:
  1. Use a loudspeaker or other voice amplification system.
  2. Communicate authority with concern.
  3. Place signs in the decontamination corridors and areas.
  4. Use common radio band frequency, particularly between members of different response organizations working in the same area or task.
- **Move away from hazard:** Move casualties and everyone else away from the hazard, and maintain crowd control.

- **Segregate:** Segregate ambulatory from non-ambulatory, symptomatic from asymptomatic, male from female. Responders should consider the special needs of families, small children, handicapped, and elderly people. To avoid spreading the contamination, victims refusing to cooperate should be isolated from the rest.

- **Collect personal items:** Victims’ personal belongings (including clothing) should be bagged and tagged. The use of clear plastic trash bags, with tags or some other means of identifying ownership and its contents is recommended. These contaminated items should be placed into drums. A plan is also needed for the disposition of these belongings. What, when, where, and how will possessions be returned to victims? Monitoring of bagged personal items can identify contamination problems. Agent vapors will collect in the bag and can be checked with a device such as the Chemical Agent Monitor or colorimetric tube. Procedures must also be in place for the handling of weapons belonging to law enforcement personnel.

- **Contaminated clothing may be evidence:** Some of these items may contain evidence, such as residual agent, which can be collected from contaminated clothing or personal items.

**Emergency Mass Casualty Decontamination Triage.** In a WMD incident, the decontamination capability of response agencies will be quickly overwhelmed by the number of victims requiring decontamination. A triage process must be applied to do the most good for the greatest number of people.

- **Ambulatory casualties:** Ambulatory casualties are those victims who are able to understand directions, talk and walk unassisted, and are triaged as minimal (i.e. green tag, green ribbon, or priority 3), unless severe signs and symptoms are present. These casualties should be directed to move upwind into an assembly area within the Warm Zone, where they can be prioritized for decontamination by on-site medical personnel. Care must be taken to ensure that the victims do not traverse contaminated areas in the Hot Zone or transfer contamination to the decontamination area.

The highest priority for ambulatory decontamination are those casualties who were closest to the point of release and report they were exposed to an aerosol or mist, and have serious medical symptoms (e.g., shortness of breath and chest tightness).

The next priority goes to ambulatory casualties who were far away from the point of release who have no evidence of liquid disposition of agent and who are clinically symptomatic.

The next priority is victims suffering conventional injuries only, especially open wounds.

The next priority are those casualties who were far away from the point of release and they have no clinical symptoms.

- **Non-ambulatory casualties:** Non-ambulatory casualties are victims who are unconscious, unresponsive, or unable to move unassisted. This may also include victims who are handicapped or elderly.

Those who are symptomatic should be decontaminated first, as they may need life-
saving care during the decontamination process.

Non-ambulatory casualties have to be processed through a litter-based decontamination corridor, assisted by at least two responders per victim.

**Emergency Mass Casualty Decontamination Procedures.** Emergency mass casualty decontamination should be conducted immediately. Do not wait for agent identification before beginning decontamination. Special consideration will have to be taken during inclement weather to avoid causing additional casualties due to hypothermia.

**First units employed:** The first units on the scene will likely have limited capability and, in fact, may be quickly overwhelmed by the magnitude of the problem. They may have already deployed a pre-connected handline, charged the pump and line, and begun directing people through a makeshift corridor before you arrive.

- **Elevated master stream:** You may be able to set up a large-scale shower with an elevated master stream, using low-pressure, and high-volume water to rain down in a shower for each lane.

- **Additional lanes:** As more apparatus arrive, direct them where to set up additional lanes or, based on space restrictions, to set up secondary decontamination corridors to support the decontamination effort.

- **Ambulatory decontamination:**

  Clearly communicate to the victims what you want them to do.

  Have them walk through the shower with their arms out, legs apart, and head back. This helps to clean them off more quickly.

  Wash from the top down. Advise them not to swallow the water and avoid getting anything but the direct spray into their faces. Also, request they do not wipe their faces with dirty hands.

- **Non-ambulatory decontamination:**

  Cut off all clothing, including underwear, if they are contaminated.

  Remove clothing from head to toe, front to back. Keep the clothing away from the victim’s face during removal.

  Remember to minimize contact with the victim or the contaminated clothing; this could transfer contamination to the next victim, as well as to you.

  Keep litters and backboards off the ground with milk crates, sawhorses, or other expedient supports. Avoid getting run-off into the victim’s face.

**Decontaminants Of Choice (Personnel).** The availability of various surfactants, such as soap, can enhance the effectiveness of the decontamination process.

- **Water:** Contamination can be removed using water, which is readily available for immediate use in most cases. It removes agent by mechanical action, but causes no ill effects. High volume, low pressure water showers are recommended for emergency mass casualty decontamination.
• **Soap and water:** The use of soap will help lift the contaminant off the skin. It takes time to mix the soap with the water, and there is extra cost associated with using the soap. There is no ill effect from using both soap and water.

• **Bleach and water:** Decontaminating with a bleach solution has shown benefit in reducing damage caused by some agents, as well as neutralizing chemical and biological agents in run-off. However, the contact time of a bleach solution on casualties is usually not sufficient to neutralize the agent, while increasing the contact time may actually result in chemical burns from the bleach. Using bleach solutions for emergency mass casualty decontamination is not always recommended.

**Technical and Equipment Decontamination Considerations.** As the need for a rapid response is critical, HAZMAT teams should be on the scene as early as possible to conduct reconnaissance, rescue remaining victims, and identify the agent. For the HAZMAT teams to perform these missions, a technical decontamination capability must exist.

• **Rapid, robust setup for responders:** Responders who will enter the Hot Zone must have decontamination set up before they can go in. Some of the first responders who were on-scene prior to the agent identification and Hot Zone designation may have gone through emergency decontamination, or may be waiting for the technical decontamination.

• **Separate decontamination corridors:** When setting up the technical decontamination corridor, establish it away from the emergency decontamination corridors.

Responders are likely to be contaminated and the victims will not have protective clothing.

Some victims awaiting emergency decontamination may become unruly or interfere with the process when they observe responders moving to the head of the line or receiving a different decontamination effort than they are.

With emergency decontamination, the emphasis is on speed and agent removal, since the victims have no protection from it. Technical decontamination concentrates more on thoroughness and neutralization of the agent.

• **Contaminated equipment and vehicles:** Emergency response vehicles and equipment may become contaminated. If it entered the Hot Zone, assume that it is contaminated.

Isolate and hold potentially contaminated equipment for monitoring.

Immediately decontaminate only that which is absolutely necessary. In the early phases, time and resources are critical, and wasting them on non-essential equipment is counterproductive.

Natural weathering may reduce the level of contamination, and monitoring may reveal that neither the individual nor the equipment was contaminated.

• **Medical facilities:** Hospitals and other facilities used for support to the responders or victims may become contaminated. Much of this can occur from cross-contamination resulting from emergency decontamination, transportation of
victims, or self-evacuation of contaminated persons. These facilities must eventually be closed, monitored, decontaminated, and thoroughly inspected before they can be reopened to the public.

**9839 Disposal**

Disposal protocols and requirements will conform to the State and Federal standards that exist for hazardous substances and materials. Options for disposal of materials 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.

**9840 Lead Federal Agency for Environmental and Health/Safety Issues**

**Lead Agency Intentions.**

**Inland Zone:** EPA is the lead federal agency for environmental and health/safety issues arising from a WMD incident whether the response is initiated under the NCP or the FEMA/NRP has been activated and ESF #10 missions and actions are underway.

**Coastal Zone:**

- The Coast Guard is the lead federal agency for environmental and health/safety issues arising from a WMD incident whether the response is initiated under the NCP or the FEMA/FRP has been activated and ESF #10 missions and actions are underway.

- Coast Guard FOSCs may engage EPA especially when the source of a WMD event is on land in an urban, industrial, or rural setting. The intent is to place the proper agency in the lead based on expertise and long-term response actions. This is important especially if we intend to eventually pass the non-emergent portion of the response to EPA. Decisions and actions taken during the early stages of a response may impact later actions. For continuity and consistency purposes, EPA may be better suited to take the initial response. The Regional Response Team (RRT) may be engaged to assist in making these decisions.

**Specific Incidents.**

**DOD and DOE:** Both DOD and DOE will take the lead environmental health/safety response for WMD hazardous substance or radiological releases from sources under their oversight.

**HHS:** For WMD incidents that create health risks but no persistent environmental threat, we would expect the health agencies to take the lead of these events.

**Emergency versus Non-Emergency Response Policy.** In accordance with standard protocols for response to CERCLA substances, within the NCP, the Coast Guard FOSC provides the lead for incidents in the coastal zone that are from vessels or that require immediate removal action to mitigate an immediate and significant harm to human life or health, or the environment. In the latter situation, once the Coast Guard FOSC determines that the emergency has been abated and there is no longer an immediate threat, the Coast Guard FOSC should transfer lead agency responsibility to the U.S. Environmental Protection Agency (EPA) for further non-emergency response action. It is possible that EPA will not be able to take the lead for non-emergency response actions. The Coast Guard will pursue mitigating non-emergent removal or decontamination actions by working with the property or vessel owner/operator or passing this responsibility to the owner/operator in total.
The following provides an example scenario: In response to an anthrax incident at a site within the coastal zone, the Coast Guard FOSC ensures that the appropriate authorities (e.g., local and state public health, HHS, etc.) have been notified. The FOSC coordinates the initial assessment with the FBI and other agencies; and, under a Unified Command, secures the location and conducts a site evaluation. Samples taken confirm the incident as an actual anthrax case (Note: Confirmation sample results may take 4 to 10 days to obtain). The FBI moves forward with a criminal investigation while the Unified Command proceeds toward mitigation of the hazard by developing sampling and long-term cleanup plans. The Coast Guard FOSC sees that the situation has been stabilized and no longer poses an immediate and substantial threat, and subsequently coordinates with the EPA to have them assume the lead agency role for consequence management for further response actions at the appropriate time. The coordination with EPA may be different for a vessel scenario.

9850 Facility/Landside and Vessel/Offshore Response

Coast Guard and EPA Pre-Designated OSC Agreements. Initial response actions should be performed in accordance with the most recent version of the “Memorandum of Understanding between U.S. Environmental Protection Agency – Region 4 and U.S. Coast Guard – Fifth, Seventh, and Eighth Districts” and “Geographic Area of Federal On-Scene Coordinator Responsibility for Puerto Rico and U.S. Virgin Islands”. However, FOSCs should take note of the provisions within the MOU to properly support disaster response actions. The MOU provides the following provision:

“During pollution responses to natural disasters or to other incidents when the National Response Plan (NRP) is activated, pollution impacts may affect many areas within the region. In these instances, OSC boundary designations may not be strictly adhered to in an effort to best use available resources to respond to the myriad of pollution issues under the guide of the NRP and Emergency Support Function (ESF) #10. However, under ESF #10, care shall be taken to place an OSC on an incident consistent with the parent agency’s expertise.” This section is applicable to WMD incidents. For example, if a WMD incident occurs within the coastal zone but impacts an area that has no maritime or marine transportation related issues, Coast Guard FOSCs may pass FOSC responsibilities to the EPA. If needed, the Coast Guard may remain as a support agency to EPA to assist in the further mitigation of incident if the Coast Guard holds the needed expertise consistent with our training, missions, and current guidance. This may be a necessity during response to an incident involving a vessel. The Coast Guard FOSC should consider the agency leadership change as early as possible to ensure that early decision-making during the emergency response phase properly supports long-term remedial or restoration actions. At a minimum, whether an agency change is anticipated or not, the Coast Guard FOSC should ensure that the EPA is invited as a supporting agency as part of the ICS/UC as early as possible. There are many technical issues (i.e., air/water sampling, decon protocols, entry procedures, etc.) that the EPA can assist and oversee for the Unified Command.

Remedial Site Evaluation. Any remedial site evaluations or assessments should be conducted by the EPA. This may include contamination surveys, confirmatory clean-up sampling and analysis, re-occupancy considerations, and other means to evaluate the proper remedial or restoration actions.

9860 Vessel Response - General

The NRP places FEMA as the lead federal agency for consequence management in response to terrorism incidents and the FBI as the lead agency for crisis management. In that regard, the NRP would be activated providing coordinated federal assistance to supplement state and local resources.

However, the FRP may not be activated for some WMD events. In anthrax cases to date, EPA has responded to known anthrax sites under the NCP utilizing CERCLA authority and funding, classifying anthrax as a disease-causing pollutant or contaminant, which poses an imminent and substantial danger to public health as outlined in section 300.5 of the NCP. Coast Guard FOSCs and Area Committee member agencies could be faced with a similar situation in the coastal zone. Under the NCP, the Coast Guard FOSC would have the responsibility to ensure a
coordinated inter-agency effort to mitigate the threat to public health and safety and removal of the product. The Coast Guard FOSC would be part of the Unified Command established to respond to the incident.

The primary Incident Commander would normally be the local or state public health or environmental response authority. However, as local/state resources become overwhelmed or need assistance, they will approach the federal government and potentially the Coast Guard FOSC for assistance to mitigate the effects of a WMD incident in an effort to secure the public’s health and welfare and protect the environment. This tiered response philosophy is mentioned earlier in section 7215. There may also be incidents involving vessels that occur outside of the local/state jurisdiction, where the Coast Guard may/will be the primary lead agency to coordinate the mitigation of the human health/welfare and environmental issues.

The section will cover only the response to the effects of a WMD incident, which is officially known as the Consequence Management portion of the response and specifically those impacting vessels where the Coast Guard may be the primary lead Consequence Management agency. Safety of the responders and the public is the highest priority during a response to a potential incident involving a WMD substance or agent. Entry into potentially contaminated areas will require protection beyond Level "D" (normal work uniform). Accordingly, personnel not specifically trained will not enter these areas.

**Assessment Procedures:** The FBI will lead the initial efforts to assess the situation as part of their Crisis Management lead agency duties. Although there may be a simultaneous response conducted by the Consequence Management agencies, once the FBI determines that the event or threat is credible, the Consequence Management agencies shall work to mitigate the effects of the incident.

The initial assessment, entry to further assess the hazard will typically be conducted by local hazmat responders (public health, Fire Dept, etc.), the FBI’s Hazmat Response Unit (HMRU), or other special units (such as the NSF). If the FBI has determined the report to be credible, they will coordinate evidence collection and subsequent lab analysis. However, if the FBI is not on scene, subsequent collection and lab analysis will typically fall to state and local authorities or the Coast Guard if the incident is in sole federal jurisdiction.

**Criminal Investigation:** Once confirmed as an actual case, the FBI will focus on the investigation. As these acts potentially are criminal acts of terrorism, the FBI is the lead agency for the criminal investigation. The Coast Guard may support this side of the response as part of our LE and Port Security mission.

**Consequence Management:** Because of the complexity and dangers involved in responding to WMD incidents, effective inter-agency coordination is essential. As in the response to other hazardous substances, the FOSC should coordinate response actions under a Unified Command structure and utilize expertise and hazmat responders from other agencies and private contractors. The local Public Health Official should be an essential decision-maker within the Unified Command based on their local authority and technical expertise. However, they may be unfamiliar with conducting a response under the NCP. The FOSC should ensure that the Public Health Official is brought into the Unified Command and work closely with them within an ICS framework.

### 9861 Vessel Control and Authorities

As indicated above the Consequence Management actions will be conducted either under FEMA as the lead agency and the FRP has been activated as a result of a national disaster declaration or under the NCP and CERCLA has the supporting regulation and statute.

**Authorities.** The Coast Guard is in a unique position in that it may use various authorities in which to address WMD issues affecting a vessel. The following authorities may be considered in dealing with a WMD incident involving a vessel.

- Magnuson Act of 1950 and Executive Order 10173, as amended
- Ports and Waterways Safety Act (PWSA) of 1972
- Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended
Consider the following issue when desiring to control the actions, movement, etc. of a vessel affected by a WMD substance or agent. If you are responding under your NCP/CERCLA authorities and the WMD substance has been specially designated as “pollutant and contaminant” by the EPA, you will not have administrative order authority under CERCLA to require certain actions. As a Coast Guard FOSC you may want to investigate and consider using other PWSA or Magnuson authorities to direct the actions of a vessel owner/operator.

9862 Vessel Quarantine

**Lead Agency.** The health agencies have the primary responsibility for making decisions concerning people and vessel quarantine. The expectation is that this issue will be primarily addressed by local/state health agencies in locations where they have jurisdiction. If there is federal interaction, the Public Health Service will take the lead as part of HHS to address quarantine issues. It should be noted that the federal/state/local health agencies in some cases are not familiar with or have the ability on their own to mount an effective response management system to address these issues. Coast Guard FOSC will involve these resources and their decision-making responsibilities into the Unified Command in an effort to resolve these issues.

Public Health Agency contacts should be made by the FOSC planning staff at the local level to work through these issues prior to an event. Without a direct contact, the FOSC should liaison with the RRT to assist in solidifying these relationships. Local/state health agency conduit can be accomplished through local contacts with State/County Emergency Management Agencies.

Because of the complexity and dangers involved in responding to disease-causing agents, effective inter-agency coordination is essential. As in the response to other hazardous substances, the FOSC should coordinate response actions under a unified command structure and utilize expertise and hazmat responders from other agencies and private contractors. This includes CDC and other Public Health officials. The National Institute for Occupational Safety and Health (NIOSH), Agency for Toxic Substances and Disease Registry (ATSDR), and the CDC have been essential players in determining site safety protocol and cleanup procedures for previous incidents that were overseen by EPA.

**Quarantine Areas.** In our coastal areas there are no known designated quarantine areas either in port or at anchorage. Coast Guard, Port Authority, and other vessel control agencies will be an important asset to the health agencies making these quarantine or vessel disposition decisions. Coast Guard COTP authorities or other agency abilities may be needed to properly support health agency actions although they have their own authorities for directing vessels, people, etc. in this regard.

Note: The Department of Agriculture (USDA) may be an asset in making some of these decisions since they may have some experience in quarantining vessels for agriculture reasons in some ports.

Although most quarantine decisions will be made on a case-by-case basis, it is important for FOSC/Area Contingency Planners to actively work with local or state health officials, Public Health Service, and local Port Authorities to determine where the best potential locations are in the available ports and anchorages to place a quarantine vessel if a decision is made to allow a vessel to enter into your jurisdiction. When making these decisions responder access, security, safety, and other management issues should be considered as trade-off issues along with the health issue and containment focus.

**Medical Protocol.** Due to the nature of disease-causing agents, additional medical precautions are needed for persons suspected of exposure and for hazmat responders working in contaminated areas. Medical protocol should be established with the consultation of CDC, the local health authorities and the attending physician prior to conducting any entries into areas that are suspected to be contaminated.
9863 Responder Access.

As mentioned above, it is important to consider responder access when making quarantine and vessel disposition decisions for vessels affected by WMD substances and agents. As health officials make their decisions on quarantine and vessel disposition, the emergency and environmental response agencies need to consider their ability to mitigate the event. Fortunately this same issue is also important to the health officials who are concerned about safely addressing the contaminated and non-contaminated crew and passengers onboard an affected vessel.

Access and Staging Areas. To place a properly protected entry team on a potentially affected vessel, the UC will have to consider suitable staging areas that are secure and that would allow the team to progress from safety areas into the identified hot zone. Likewise, decontamination during team egress needs to also be considered. When vessels are restricted to off shore areas, challenges may arise in which to safely coordinate and implement response and mitigation efforts. This should be considered when developing the plan for addressing a vessel response.

Preparation and planning with the environmental response and health and safety community is paramount to ensure all options are fully realized within a specific port. Deck barges and other resources that may assist in boarding and staging of responders, medical teams, entry teams, etc. should be identified in plans to facilitate UC actions.

9864 Security

To properly maintain quarantine, site control, hot zone protocol, etc. proper security resources need to be identified within the port. The responsibility for providing security may rest with the vessel owner/operator, health agencies, LE agencies, or the environmental response agencies depending on the incident details. Site security will also assist in controlling unauthorized people leaving the vessel as well as those attempting to gain access. To support Crisis Management issues of the response, security may be focused towards evidence and crime scene protection. However, simultaneously the security force may also be vital in containing people and property that may be exposed or contaminated by the WMD substance/agent.

9865 Owner/Operator Responsibility

Although during a WMD incident, the owner/operator of a vessel may not be culpable of causing the incident, they will play an important role in mitigating the event. As we have seen with firefighting planning, vessel owner/operators are never fully alleviated of responsibility for the vessel and the people under their employment or guide. The owner/operator should play an important role in assisting the government in mitigating a WMD event on board their vessel. They will have a strong interest in ensuring their crew and/or passengers are properly tracked and cared for as well as the process of getting their vessel back in service. Some of the issues that may be addressed by vessel owners/operators follow in the not all inclusive list.

- Provide early communication link and information to the response management system;

- Take initial actions to contain the event on board (i.e., separate suspected exposed people, close down vents and other access to affected spaces, prepare crew/passenger lists and begin tracking all people, etc.);

- Assist the COTP in determining the initial disposition of the vessel (i.e., remain at sea, bring into port etc.);

- Assist health agencies with addressing treatment of exposed crew/passengers;
• Assist where possible with emergency response activities;

• If passengers and crew are allowed to disembark, assist in tracking injured, exposed, and non-exposed people;

• Assist the health agencies with preparing procedures, medical contacts, and other pertinent information for departing crew/passengers should they become symptomatic at some future time; and

• Once situation is contained and the emergency phase of the operation is complete, prepare a plan for non-emergency action leading to decontamination of the vessel and the placing of the vessel back in service.

9866 Crew and Passenger Issues

**Health Agency Focus.** The health agencies should address the people issues surrounding a WMD event. However, the tracking of crew/passengers and the disembarking of people not needing immediate medical assistance or those not suspected of being affected may be an issue that will impact the environmental response and/or vessel movement controls.

**Sample Confirmation.** A critical time in this evolution is during the waiting period for confirmation of samples. Biological sample confirmation may take 4-7 days in some areas. During this period, if people are not symptomatic and the vessel is allowed to depart or passengers/crew is allowed to disembark certain actions may need to be taken. The health agencies and the vessel owner/operator should provide guidance to those allowed to disembark. If the vessel is allowed to leave during sample confirmation, the UC/COTP may consider notifying the next port of call, the flag state, etc.

9867 Final Disposition/Decontamination/Disposal Authorities

The effort of the emergency phase of the Consequence Management portion of the response would be to address/resolve the health, welfare, and safety issues and contain the environmental threat on the vessel. Once the Coast Guard FOSC determines that the emergency has been abated and there is no longer an immediate threat, the Coast Guard FOSC should seek a proposal for a non-emergency response and mitigation plan. Although each situation is different, the owner/operator of the vessel should in most cases be the primary entity to address the non-emergency phase and long-term cleanup action, if they have the means and capabilities to manage such a response.

If the owner/operator takes responsibility for the non-emergency long-term cleanup action, the Coast Guard FOSC/UC will manage the oversight of that action and may provide government support where it does not exist in the private sector. For example:

• If the vessel cannot be adequately decontaminated and the proposal is to sink the vessel in deep water offshore, the Coast Guard can facilitate the ocean dumping permit with EPA;

• The UC conduit with the state and local government agencies can be used to address disposal issues; and

• The UC can engage the technical agencies (i.e., EPA, CDC, ATSDR, etc.) to assist the owner/operator with various response and health/safety issues.
Vessel WMD Event Response Checklist

OSC: ______________________________________________________________________
Incident Name: ______________________________________________________________________
CPN/DPN: ______________________________________________________________________

☐ A Vessel is reported to be involved in a WMD event.
Vessel Name: ______________________________________________________________
Flag: ______________________________

☐ Notifications.
• D7 Command Center (cc) – (800) 874-7561
• National Response Center (NRC) – (800) 424-8802
  NRC will notify the following:
    - Department of State
    - Department of Justice
    - Army Chemical and Biological Command
• LANTAREA Command Center – (757) 398-6395
• Flag plot
• Other CG Units
• FBI and State/Local LE Crisis Management Agencies
• Federal, State and Local Health Agencies
• Federal, State/local, and Private Sector Environmental Response Agencies and Organizations
• Flag State (If applicable)

☐ Crisis Management.
• FBI is the lead agency
• State and Local LE agencies may respond
• FBI makes credible threat determination (Note: Consequence agencies may be requested to assist with entry, sampling, and other technical actions)
• If FBI determines that there is a credible threat, the scene is secured and treated as a crime scene

☐ Consequence Management.
• FEMA is the lead agency if a disaster declaration is made
  - Coast Guard responds to vessel incident in the field iaw the NCP
  - Coast Guard supports FEMA under ESF #10 – Hazardous Materials to support human health/welfare, safety, and environmental response/cleanup/removal actions
  - Funding provided by the Stafford Act unless the incident is off-shore and outside State jurisdiction. If incident does impact a State, we would fund under CERCLA

CLASSIFICATION: UNCLASSIFIED
• If there is no-disaster declaration, for a vessel response, the Coast Guard FOSC will be the lead agency in the coastal zone to support human health/welfare, safety, and environmental response/cleanup/removal actions.
  - Coast Guard responds to vessel incident in the field iaw the NCP
  - Funding provided by CERCLA Trust Fund

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| **Assessment** | - Health/Safety Issues – Addressed by State/local health departments and at the federal level by the Public Health Service (PHS)
- Environmental Response and Cleanup – For vessels the Coast Guard is the lead agency in the coastal zone |
| **Authorities/Vessel Movement Control** | If CERCLA is used for response to a EPA designated “pollutant contaminate”, CERCLA Admin Orders are not available to the FOSC. CG FOSC/COTP should consider issuing orders under the Magnuson Act or PWSA. |
| **Vessel Quarantine** | - Lead Agency. State/Local Health Agencies and the PHS at the federal level.
- Suitable Quarantine Area Identified as:______________________________
  Area should consider:
  - Safety
  - Access
  - Security
- Medical Protocol. PHS/CDC and health agencies should develop medical protocols for potential victims and responders |
| **Non-Emergent Response Actions** | Once the health/welfare issues have been resolved or addressed and the environmental threat is contained, the incident response moves from emergency action into a non-emergency/long-term cleanup action. As the Coast Guard FOSC evolves into the non-emergency phase he/she should consider:
  - Requiring the owner/operator to develop a long-term decontamination/cleanup plan.
  - Ensure that passenger/crew health issues have been addressed or resolved by the health agencies.
  - Determine through the long-term decontamination/cleanup plan, the final disposition of the vessel and the benchmarks/accomplishments needed to place the vessel back in service |
9870 Information Management and Communications

**Communication.** The UC should consider the following in bolstering their communications capabilities on-scene and among the port/community:

- **Communicate the hazards:** Use the media to assist in communicating the hazards associated with the WMD terrorism incident to the public.

- **Control access to scene(s):** In addition to controlling access of the media to the incident scene(s) so that they do not interfere with operations or become casualties themselves, the media can also pass to the public information on street/road closures and alternate routes around the incident area.

- **Consider media as an asset:** Emergency responders should consider using the media to help communicate the hazards of entering this potentially dangerous crime scene, and help instill confidence that the incident is being managed in the most expedient and efficient manner.

**Information Management.** Because of the potential complexities of a WMD response and the relationship building and liaison skills needed to coordinate actions between crisis management and consequence management entities, the JOC and the ICS/UC, the victims and the responders, and the responders and the community, the FOSC and UC members should consider the following to ensure the proper internal and external information flow during the response.

- **Information Management.** The most important elements of any emergency response are the protection of life, environment, and property. These priorities lead to the establishment of objectives that drive the response. Information is the basis of every decision that is made during a response. Everyone from the Incident Commander establishing the objectives to the field worker cleaning a beach will make decisions based on the information presented to them. With that basic premise in mind, Information Management is arguably the most important supporting function of emergency spill response. It is the most critical and necessary means to a successful end. Time after time, post response and drill critiques have pointed to inadequate information flow, and communications as one of the most significant areas needing improvement during response.

- **Information management serves the information needs internal to the response organization as well as many information needs external to the actual emergency response operations.** Well-planned and executed information management is where the battle is won during emergency spill response, directly impacting the actual cleanup and response effectiveness. Successful information management is dependent on “getting the right piece of information in the right format to the right place at the right time.” It is not too surprising that the complex task of managing the information needs during response often falls short without adequate levels of training and planning.

- **Internal Information Management.** Internal information management is all of the situational, environmental, physical, status, planning, operational, logistical, and financial information needed by the Incident Command System (ICS) to make decisions and affect a successful response. Successful internal information management requires an advanced level of skill to accomplish. The majority of critical internal information management is the responsibility of the Situation Unit.
Leader (SUL) who maintains status boards and situational displays in the Command Center. It is very important to understand, however, that the SUL will never be fully successful without the support of the entire ICS. Each position within the organization has information management responsibilities, which must feed into the appropriate pathway during the response.

- Important skills for information managers include obtaining critical information, disseminating it and avoiding information overflow. Information managers must understand the need and have the ability to provide a synthesis of information and present it in a context that is relevant for the decisions at hand.

- **External Information Management.** Trustees and other stakeholders must be informed in order to fulfill their management and decision making responsibilities. The public, also an important stakeholder during spill response, needs to be informed and kept abreast of important developments. The Unified Command must develop a pathway for getting their information into the Incident Command.

When multiple public or private agencies and organizations come together to respond to an emergency or manage an event, efficient information flow is critical to effectively carrying out Information Officer/Joint Information Center (JIC) responsibilities and meeting the expectations of various publics. A JIC is a centralized “communication hub” that serves to achieve that information flow. Establishing a JIC, developing processes and procedures, and training staff on how to operate a JIC effectively allow response organizations to be more proactive in responding to the information needs of responders, the public, federal, state, and local governments, foreign governments, and industry.

Because of the critical nature of providing emergency information to disaster victims, time spent getting organized rather than responding at the time of an event can lead to confusion and a loss of public confidence. Through a JIC, the different agencies involved in a response can work in a cohesive manner, enabling them to “speak with one voice”.

- **Information Management Tools.** Information management tools are available to
On-Scene Coordinators (OSC) to assist in meeting information management needs during response. Some of these tools are designed to address internal information management needs, while others specifically target external information needs. Often, certain tools can, to some degree, serve both internal and external needs. OSCs are encouraged to become familiar with these tools and employ them in drills as well as actual responses in order to be better prepared to effectively and efficiently integrate them into the response when needed. It is necessary to remember that the most important element in successful information management is trained and capable people. The variety of ever-growing computer-based technologies designed to assist with information management require the right people to use and manage them effectively.

- **Situation Unit Leader.** The Situation Unit Leader (SUL) is responsible for the situation display, distribution center, staffing, and providing information conduits to sections and field units.

  The Situation Unit is responsible for the collection and evaluation of information for the current and future status of the spill. The unit is also tasked with preparing, posting, or disseminating resource and situation status information. JIC personnel are focused on public (external) information, whereas the Situation Unit focuses on the operational status (internal) information needs. The two are different; not all information is appropriate for release to the public, yet it needs to be available to other sections of the ICS. The JIC needs to be one of the receivers of this internal status information, as well as the sole provider of external status products based on releasable internal information. A strong, proactive, and dynamic Situation Unit needs to be implemented to be effective. Charismatic personnel need to be assigned to this specific unit. Too often, the best-trained people who understand the need for aggressive information management are sent to other tasks. The Situation Unit needs to have aggressive and knowledgeable people to ensure information is gathered and evaluated effectively. An operationally savvy person supporting the JIC can also enhance the accuracy of gathered and released information. If the internal flow of information fails, the response will suffer. Checklists for the information management team would include times of meetings, times for product updates, key personnel, and points of contact within the response.

- **Joint Information Center (JIC).** The JIC is an important external information management tool. The JIC must be well coordinated with the Situation Unit Leader. The physical location of the JIC should be conducive to effect this coordination. The JIC structure is most useful when multiple agencies and organizations come together to respond to an emergency or manage an event and need to provide coordinated, timely, accurate information to the public and other stakeholders. By maintaining a centralized communication facility, resources can be better managed and duplication of effort is minimized. Finally, the use of a JIC allows for tracking and maintaining records and information more accurately therefore, improving the ability to conduct post-incident assessments that can be used to improve crisis communication and general response activities during future incidents.

- **Incident Command System (ICS).** The response organization itself is an important information management tool. Each member must understand the importance of information management and be prepared to support it. Section Chiefs in particular need to understand the critical information need from various sections and insure it gets to the right place. They must also know where to go to
get specific types of information they will need.

- **OSC2.** Developed and supported by the Coast Guard, OSC2 provides the response management system, which is an internal spill management tool. OSC2 is a software application designed for use by oil spill responders to manage the information traditionally contained on paper ICS Forms. The OSC2 application use electronic ICS Forms as an interface to a central database that stores the spill application information making it instantly available to all members of the spill response team.

- **NOAA Spill Web.** NOAA Spill Web is an external tool, but can serve some internal needs as well. The system is normally an incident specific web site set up and maintained offsite, but fed by the Unified Command (UC). Release authorization for any posted information can be accomplished through the JIC, DRAT, or designated by subject matter within the UC.

- **Geographic Information Systems (GIS) and Other State or Responsible Party Contracted Information Management Tools.** Often there are GIS or similar mapping systems available that can support a variety of information management needs during the response. These may be supported by states, Coast Guard units, or outside contracted entities. Other information management tools may be available to the UC through responsible parties or other outside contractors. It is important that any of these tools be integrated into the ICS to coordinate with other information management tools to effectively and jointly meet the UC’s information needs. It is also important that the information developed, maintained, and supported by these tools be transferred to the UC prior to the operators departing the scene. System compatibility issues need to be considered to avoid losing important information and documentation related to the response.

## 9880 Specific WMD Issues

### 9881 Biological Agents

**Background.**

As we look at biological agents, you will see some similarities with what we discussed earlier with chemical agents, but you will also note some significant differences. You need to understand some of the basic characteristics of these potential biological agents and how to protect yourself.

Delayed effects: The biggest difference is time. Unlike chemical agents, most of which have an immediate effect, most biological agents have a delayed effect ranging from several hours to days, and in some cases, weeks. In the event of a biological incident, there may be no casualties and nothing significant initially. You or someone else may happen to witness the actual release or find some type of suspected dissemination device or you may receive intelligence from law enforcement that alerts you to the possibility of the attack.

Toxicity: By weight, biological agents are generally more toxic than chemical agents. For example, ricin, is 6 to 9 times more toxic than sarin, and botulinum, another toxin, is 15,000 to 30,000 times more toxic than sarin.

Human detection: Biological agents are undetectable by the human senses. We cannot see or smell them, nor should we attempt to touch or taste them.
**Response Methodology.** For a bio-terrorism incident, the following general actions and relationships should be considered upon receiving the initial report.

- **Notifications.** The following notifications shall be made:
  - National Response Center (NRC)
  - Crisis Management Agencies
    - FBI and local/State Agencies
    - Department of State if incident is occurring outside Territorial Seas
  - Consequence Management Agencies (Notify as needed)
    - Local/State hazmat and health departments;
    - Local/State Emergency Management Agencies;
    - Local/State Environmental Agencies;
    - Department of Health and Human Services (HHS), Center for Disease Control (CDC), or Agency for Toxic Substances and Disease Registry (ATSDR);
    - National Institute of Occupational Safety and Health (NIOSH) and the Occupational Health and Safety Administration (OSHA);
    - Environmental Protection Agency (EPA);
    - National Guard Civil Support Teams;
    - Coast Guard National Strike Force;
    - Private Sector Cleanup Contractors;
    - Trustee Agencies; and/or
    - Other stakeholders identified in Area Contingency Plans (ACP) or other local plans.

- **Removal/Recovery.** This section provides information and guidance on containment, cleanup, decontamination, and disposal.

- **Post-Response/Remedial Activities.** As is the case with standard protocols for response to CERCLA substances under the NCP, the Coast Guard OSC actions will primarily be focused towards emergency response actions. Once the situation is stable and the event progresses into the remedial or restoration phase, and the Coast Guard OSC determines that the emergency has been abated and there is no longer an immediate threat, the Coast Guard OSC should transfer lead agency responsibility to the U.S. Environmental Protection Agency (EPA) for further non-emergency response action.

**Biological WMD Response Flowchart.** The following is the progression of general events surrounding a potential or actual bio-terrorism event.
Coast Guard On-Scene Coordinator (OSC) Response
To a WMD Biological Incident

Report of a potential Biological WMD Incident

Contact the FBI and Local/State LE – 911

Credible Threat?

Yes

Consequence Management

Although Crisis Management has the lead, if the threat is credible, health & environmental response agencies would normally mount a simultaneous response, especially if o/s people are symptomatic:

- Local hazmat teams, health departments, etc. would respond dependent on scenario;
- If local and State resources request federal assistance or incident occurs solely in federal jurisdiction federal agencies would respond – Lead Agency would be the applicable OSC in accordance with the NCP; or
- FOSC may assist FBI/LE with coordination of initial investigative

FBI/LE continues investigation and manages evidence. Crisis agencies should allow Consequence agencies access to mitigate potential health and environmental threats.

Consequence agencies respond to mitigate potential health and environmental threats especially if people are symptomatic or there are overt WMD effects. Consider:

- Containing affected area;
- Evacuate unaffected people;
- Record and track affected people; and/or
- Secure WMD source.

FOSC allows local and private responders to address issues if capable and provides oversight.

No

Response Ends

CG Actions Taken O/S:

- Secure Scene
- Back-off and avoid exposure
- Determine people casualties and symptoms from a distance if possible
- Wait for LE
- Notify health and environmental agencies

Risks Management

As part of the Criminal Investigation FBI/LE may:

- Initiate sampling to verify presence of biologic substances;
- Control site access;
- Question witnesses and carryout other LE functions; and/or
- Call in hazmat teams, health/environmental responders, etc. to assist in securing/containing perceived threats.
**Biological WMD Planning Issues.** One of the critical issues facing the Coast Guard OSC will be the availability of government or private sector resources that can do hot zone entry, cleanup, decon, and disposal. Local planners must identify hazmat contractors, local labs, government responders that may be able to address these response issues. For biologic response, consider:

- Approaching local hazmat contractors to determine who has capability;
- Become familiar with CG Strike Team and National Guard Civil Support Team capabilities;
- Know local health and hazmat team capabilities;
- Identify federal HHS/PHS agencies and their intended level of assistance for potential and actual incidents; and
- Identify local labs that are certified to analyze bio-samples (Note: CDC will normally not do sample analysis until a WMD substance is confirmed.)
Classes of Biological Agents.

Selected bacterial, viral, and toxin agents, their characteristics, and treatment are of particular concern when preparing for biological terrorism.

Bacteria and Viruses. Both bacteria and viruses are living organisms and, as such, require an environment in which to live and reproduce.

- They can enter the body through inhalation or ingestion, through a break in the skin, or through other body openings or orifices. In a deliberate use, inhalation through the lungs is usually the targeted portal of entry.

- Once the organisms invade the body, they begin to grow and reproduce. They can also produce toxins, which may poison the body. Your body has built-in defense mechanisms, but if they are overwhelmed or not effective, then the specific symptoms associated with the particular organism or disease begins to appear. Fever, vomiting, and diarrhea are frequently early symptoms. Depending on the particular disease, the effects will continue to develop and can, in many cases, completely disrupt normal body functions and cause death.

- Some bacteria and viruses can cause epidemics by being transmitted from one infected individual to another. This is true of only a few of the agents: pneumonic plague (bacteria), smallpox, and viral hemorrhagic fevers such as Ebola (viruses).

Toxins. Toxins are poisonous substances produced as a by-product of pathogens or plants and even some animals. Snake venom is a good example of a toxin.

- Toxins are not living organisms, but in fact chemical compounds, often proteins or protein-like materials.

- Toxins can enter the body in the same manner as pathogens.

- Toxins are not contagious.

Aerosol Particle Size.

The most effective delivery method for most biological agents is by the inhalation of an aerosol containing agent particles that are in the 1 to 5 micron size range. Particles in the 1 to 5 micron size range can be breathed into the deep part of the lung (alveoli) during normal respiration. Larger particles either quickly fall out of the biological aerosol or they become trapped in the upper airway. Smaller particles are breathed into the lung, but are expired out again without retention.

The first biological warfare agents were manufactured as wet slurries of highly concentrated bacterial and viral agents. These slurries were easy and relatively safe to manufacture but were difficult to disseminate in the correct particle size range and had to be refrigerated for storage. Another significant advance in biological warfare was the development of biological agents in freeze-dried powder formulations. These were technically difficult and dangerous to manufacture.

Bacteria.

Anthrax and plague are two examples of diseases caused by bacteria:

a. Anthrax:

   1. Incubation period: The incubation period is 1-6 days and the early symptoms are chills, fever, nausea, and swelling of lymph nodes. Treatment involves the use of antibiotics and vaccine, and treating the specific symptoms. Once symptoms of the disease develop, treatment is supportive and often unsuccessful.
2. **Contagious:** No. Anthrax is a bacteria. It occurs naturally in cattle, sheep, and other hoofed animals. It is normally transmitted to man through cuts or abrasions in the arms and hands (cutaneous anthrax). Anthrax can form spores which make the organism more resilient. In spore form, it can be transmitted to man through the respiratory tract (inhalational anthrax), where it is a much greater threat (mortality can reach 80-90%).

3. **Signs and symptoms:** The signs and symptoms of anthrax include coughing, fever, malaise, fatigue, and mild chest discomfort.

4. **Protection:** The use of standard precautions is necessary for handling victims of this agent.

5. **Treatment:** Antibiotics such as ciprofloxacin, doxycycline, or penicillin for pulmonary and intestinal infections may be useful in the very early stages. Intensive care may be necessary for advanced infections. A Food and Drug Administration (FDA) licensed vaccine is available. The vaccine schedule is 0.5 ml administered subcutaneously at 0, 2, 4 weeks, then 6, 12, 18 months for the primary series, followed by annual boosters.

b. **Plague:**

1. **Incubation period:** The incubation period is 2-3 days and early symptoms are high fever, chills, headache, spitting up blood and shortness of breath. Untreated pneumonic plague has a mortality rate of 90-100%.

2. **Contagious:** Yes for pneumonic, no for bubonic. Plague or “black death” is a bacteria normally transmitted to man from rats through the bites of infected fleas. In an aerosol form, it can be transmitted to man through the respiratory tract, causing pneumonic plague.

3. **Signs and symptoms:** The plague organism causes high fever, chills, headache, tender lymph nodes, cough with bloody sputum, and signs of overwhelming infection, including pneumonia.

4. **Protection:** The use of standard and droplet precautions is necessary for this agent.

5. **Treatment:** Treatment involves using antibiotics treating specific symptoms. A licensed, killed vaccine is available. Primary series of an initial dose followed by a second, smaller dose 1-3 months later, and a third dose 5-6 months after the second dose. You should give 3 booster doses at 6 month intervals following dose 3 of the primary series, then every 1-2 years. This vaccine is effective against bubonic plague, but probably not against aerosol exposure.

**NOTE: Precautions:**

a. **Standard Precautions:** Responders should be familiar with these practices from experience in dealing with HIV (+) individuals. Standard precautions include washing hands with anti-microbial soap following exposure to patient and wearing gloves, a face shield, and cap/gown. Contaminated equipment and linen should be properly processed, and environmental surfaces should be cleaned and disinfected. Patients at risk for environmental contamination should be placed in a private or cohort location.

b. **Droplet Precautions:** In addition to standard precautions, masks and eye protection must be worn within three feet of the patient. Transport of the patient should be limited, with suitable masking of the patient when transport is required. Patients should be placed in a private or cohort location.

c. **Airborne Precautions:** Both standard and droplet precautions apply. If possible, the patient should be placed in a negative pressure room, and high intensity air filter respiratory protection, such as P-100 filters, should be used. A tight sealing mask must
be used on the patient in the event of transport.

d. **Contact Precautions:** The same precautions apply as for standard and droplet. Additionally, patient care equipment should be dedicated to one patient only.

**Viruses.**

a. **Smallpox:** Smallpox is caused by the variola virus. It occurs in at least two strains, one of which causes variola major and the other causes a milder disease, variola minor. This virus poses a threat because of the aerosol infectivity of the virus, and the fact that people are no longer vaccinated against smallpox.

1. **Incubation period:** The incubation period is 7-17 days.

2. **Contagious:** Yes. Smallpox is a virus, and without vaccine protection, the aerosolized virus presents a respiratory threat.

3. **Signs and symptoms:** A victim will begin to feel ill with fever, rigors, vomiting, headache, and backache. Two to three days later, lesions begin to appear.

4. **Protection:** The uses of standard, droplet, airborne, and contact precautions are necessary for handling victims of this agent.

5. **Treatment:** A very effective vaccination is available, but its supply is limited since smallpox is considered eradicated, and without this protection the suspended, or airborne virus presents a respiratory threat. The mortality rate can reach 30% in unvaccinated victims. There is no effective chemotherapy, and treatment of clinical cases remains supportive.

b. **Viral hemorrhagic fevers:** Viral hemorrhagic fevers include Yellow Fever, Ebola, Marburg, Lassa Fever, Rift Valley Fever, and Dengue Fever. Ebola has received a lot of attention in the press and recent movies.

1. **Incubation period:** The incubation period for viral hemorrhagic fevers is 4-21 days.

2. **Contagious:** Yes. Some VHF is transmitted by person to person contact, some by contact with animals, and others by mosquito or other animal vectors.

3. **Signs and symptoms:** Symptoms include elevated temperature, malaise, muscle pain, vomiting, and diarrhea, followed by blotches on the skin from subcutaneous bleeding.

4. **Protection:** The uses of standard, droplet, airborne, and contact precautions are necessary for these viruses.

5. **Treatment:** Treatment is symptomatic. At this time there is no approved anti-viral medication for Marburg or Ebola virus infection and an effective vaccine awaits development. Ribovirin is an antiviral medication that has shown effectiveness in treating other VHF disorders such as Congo Crimean Hemorrhagic Fever and Hemorrhagic Fever with Renal Syndrome (HFRS). Only Yellow Fever has an available effective vaccine.

Whereas chicken pox, causes a rash that begins on the trunk and spreads outwards, smallpox begins on the extremities and spreads inward. Skin lesions appear, and following the period of pustular vesicles, the skin lesions dry to form scabs within the next 8 to 10 days.

**Toxins.**

There are numerous naturally-occurring toxins. For our purposes, we will group them into two categories:
a. **Neurotoxins:** Neurotoxins attack the nervous system. They are fairly fast-acting and can act in a manner opposite to that of the nerve agents because they prevent nerve-to-muscle stimulation.

b. **Cytotoxins:** Cytotoxins are cell poisons. They are slower acting and can have a variety of symptoms, including vomiting, diarrhea, rashes, blisters, jaundice, bleeding, or general tissue deterioration.

There are numerous other modes of toxins. The following are examples of toxins:

a. **Botulinum: Onset of symptoms:** Symptoms begin 24-72 hours after ingestion or inhalation of the toxin.

   1. **Contagious:** No. Botulinum is a neurotoxin. Normally, botulinum toxin affects people who eat improperly canned food, and develop a disease called botulism. In a terrorist incident, food could be deliberately contaminated with this toxin, and cause numerous cases of botulism. The toxin can be airborne and presents an inhalation threat.

   2. **Signs and symptoms:** Generalized weakness, dizziness, dry mouth and throat, blurred vision and diplopia, dysarthria, dysphonia, and dysphasia are followed by symmetrical descending flaccid paralysis and the development of respiratory failure. Symptoms may begin as early as 12 to 36 hours following ingestion or inhalation, but may require as long as several days in some cases.

   3. **Protection:** The use of standard precautions is necessary for this agent.

   4. **Treatment:** Reported cases of botulism prior to 1950 had a mortality of 60%. With respiratory assistance, fatalities should be less than 5%. Treatment includes antitoxin and supportive measures.

b. **Ricin:**

   1. **Onset of Symptoms:** Onset of symptoms of ricin after ingestion is 4-8 hours, and after inhalation is 12-24 hours.

   2. **Contagious:** No. Ricin normally enters the body through ingestion. It can be airborne, although with considerable difficulty. It can also be induced through injection.

   3. **Signs and symptoms:** Symptoms after ingestion include nausea, vomiting, bloody diarrhea, abdominal cramps, and breathing difficulty. Symptoms after inhalation include fever, chest tightness, difficulty breathing, and malaise.

   4. **Protection:** The use of standard precautions is necessary for this agent. Ricin is 6-9 times more toxic than the nerve agent sarin.

   5. **Treatment:** The untreated mortality rate is high, with death normally occurring after 36-72 hours; however, victims can linger for 10-12 days before death, depending upon dose received. Treatment includes respiratory therapy and other supportive measures.
Other Potential Biological Agents.

The Centers for Disease Control (CDC) and Prevention maintains an active watch of emerging infectious diseases and outbreaks throughout the world. The CDC makes its numerous reports and findings on biological outbreaks, epidemics, and medical information available on its web sites (www.cdc.gov). Other biologically derived compounds, such as Q-Fever, Tularemia, Staphylococcal Enterotoxin B, and Venezuelan Equine Encephalitis, have been considered candidates for weaponization or terrorist use. CDC has separated biological agents as follows:

### Critical Biological Agents

Critical Biological Agents include those that:
- are moderately easy to disseminate;
- cause moderate morbidity and low mortality; and
- require specific enhancements of CDC’s diagnostic capacity and enhanced disease surveillance.

Critical Biological Agents include:

- *Coxiella burnetti* (Q fever);
- *Brucella species* (*brucellosis*);
- *Burkholderia mallei* (glanders);
- Alphaviruses: *Venezuelan encephalomyelitis*;
- Eastern and western equine encephalomyelitis;
- Ricin toxin from *Ricinus communis* (castor beans);
- Epsilon toxin of *Clostridium perfringens*; and
- *Staphylococcus* enterotoxin B.

A subset of this list includes pathogens that are food or waterborne. These pathogens include but are not limited to:

- *Salmonella* species;
- *Shigella dysenteriae*;
- *Escherichia coli* O157:H7;
- *Vibrio cholerae*; and
- *Cryptosporidium parvum*. 
**Emerging Biological Agents.** The U.S. public health system and primary health-care providers must be prepared to address varied biological agents, including pathogens that are rarely seen in the United States. High-priority agents include organisms that pose a risk to national security because they:

- can be easily disseminated or transmitted person-to-person;
- cause high mortality, with potential for major public health impact;
- might cause public panic and social disruption; and
- require special action for public health preparedness.

High Priority Agents include

- *Variola major* (smallpox);
- *Bacillus anthracis* (anthrax);
- *Yersinia pestis* (plague);
- *Clostridium botulinum toxin* (botulism);
- *Francisella tularensis* (tularemia);
- Filoviruses:
  - *Ebola* hemorrhagic fever,
  - *Marburg* hemorrhagic fever;
- Arenaviruses:
  - *Lassa* (Lassa fever),
  - *Junin* (Argentine hemorrhagic fever), and related viruses.

Health-care agencies must have enhanced capacity to investigate unusual events and unexplained illnesses, and diagnostic laboratories must be equipped to identify biological and chemical agents that rarely are seen in the United States. Fundamental to these efforts is comprehensive, integrated training designed to ensure core competency in public health preparedness and the highest levels of scientific expertise among local, state, and federal partners.

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**Emerging Biological Agents** include emerging pathogens that could be engineered for mass dissemination in the future because of:

- availability;
- ease of production and dissemination; and
- potential for high morbidity and mortality and major health impact.

Emerging Biological Agents include

- Nipah virus;
- Hantaviruses;
- Tickborne hemorrhagic fever viruses;
- Tickborne encephalitis viruses;
- Yellow fever; and
- Multidrug-resistant tuberculosis.

Preparedness for this list requires ongoing research to improve disease detection, diagnosis, treatment, and prevention. Knowing in advance which newly emergent pathogens might be employed by terrorists is not possible; therefore, linking bioterrorism preparedness efforts with ongoing disease surveillance and outbreak response activities is imperative.
9882 Chemical Agents

Background.

Chemical agents that might be used by terrorists range from warfare agents to toxic chemicals commonly used in industry. Criteria for determining priority chemical agents include:

- Chemical agents already known to be used as weaponry;
- Availability of chemical agents to potential terrorists;
- Chemical agents likely to cause major morbidity or mortality;
- Potential of agents for causing public panic and social disruption; and
- Agents that require special action for public health preparedness.

General Characteristics of Chemical Agents.

- **Generally Liquid (when containerized):** Event though agents are often referred to as gases, they are generally liquid when containerized; some boil at low temperatures and become gases when exposed to the atmosphere.

- **Normally Disseminated as Aerosols or Vapors:** Chemical agents are normally disseminated as aerosols or as vapors, and thus will dissipate with time.

- **All but one is Heavier than Air:** Hydrogen Cyanide is the only chemical agent that is lighter than air.

- **Influenced by Weather Conditions:** Chemical agents are influenced by weather conditions, such as temperature, wind speed, wind direction, humidity, and air stability.

- **Can be Protected Against:** There is treatment for exposure and effective decontamination methods do exist.

Routes of Entry.

- **Respiratory Tract:** Most agents are disseminated as aerosols or gases and enter the body through the respiratory tract.

- **Skin:** Some liquid agents enter via skin contact. In some instances, if the vapor concentration is high enough or if the vapor exposure is long enough, vapors can penetrate the skin and cause the same effects as skin contact with a liquid agent. However, the concentrations required are sufficiently large that this is not generally a lethal skin hazard, particularly in large open areas.

- **Eyes:** Because the eyes are especially sensitive to a number of agents, they may often give an early sign of exposure.

- **Ingestion:** Some agents may enter the body by ingestion of contaminated food or liquid.

- **Injection:** In two known instances, assassins have injected chemical agents into their victims.

Classes of Chemical Agents.

Chemical agents are classified as either lethal, or incapacitating and “riot control” according to their intended use.

- **Lethal:** These have been sub-divided into two categories: industrial materials used or considered as chemical warfare agents, and chemical warfare agents, which have little or no other purpose beyond their
intended use as weapons of mass destruction.

- **Incapacitating Riot Control**: Incapacitating and riot control agents are not considered as primary terrorist threats, due primarily to their relatively short duration of effects and minimal toxicity. However, they can be used (and often are used, either deliberately or accidentally), since their initial effects may be similar to the initial symptoms of more lethal chemical agents.

**Categories of Chemical Agents Include:**

- **Nerve Agents**:
  
  Tabun (ethyl N,N-dimethylphosphoramidocyanidate),
  Sarin (isopropyl methylphosphonofluoridate),
  Soman (pinacolyl methyl phosphonofluoridate),
  GF (cyclohexylmethylphosphonofluoridate),
  VX (o-ethyl-[S]-[2-diisopropylaminoethyl]-methylphosphonothiolate);

- **Blood Agents**:
  
  Hydrogen cyanide,
  Cyanogens chloride;

- **Blister Agents**:
  
  Lewisite (an aliphatic arsenic compound, 2-chlorovinyl dichloroarsine),
  Nitrogen and sulfur mustards,
  Phosgene oxime;

- **Heavy Metals**:
  
  Arsenic,
  Lead,
  Mercury;

- **Volatile Toxins**:
  
  Benzene,
  Chloroform,
  Trihalomethanes;

- **Pulmonary Agents**:
  
  Phosgene
  Chlorine
  Vinyl chloride;

- **Incapacitating Agents**:
  
  BZ (3-quinuclidinyl benzilate);

- **Pesticides, Persistent and Non-Persistent**;

- **Dioxins, Furans, and Polychlorinated Biphenyls (PCBs)**;
• **Explosive Nitro Compounds and Oxidizers:**
  Ammonium Nitrate combined with fuel oil;

• **Flammable Industrial Gases and Liquids:**
  Gasoline,
  Propane,
  Liquefied Natural Gas;

• **Poison Industrial Gases, Liquids, and Solids:**
  Cyanides,
  Nitriles; and

• **Corrosive Industrial Acids and Bases:**
  Nitric acid,
  Sulfuric acid.

**Definitions.**

• **Volutility/Persistency** – Volatility is important because it gives you an indication of how rapidly an agent will evaporate. The more volatile an agent is, the more rapidly it will evaporate. Evaporation will cause the agent to become a true gas or vapor and reduce the liquid hazard, but will also increase the respiratory hazard. Temperature, wind speed, and humidity at the incident site influence how rapidly an agent will evaporate.

  The evaporation process affects the persistency, or the amount of time an agent will remain a threat at the incident site. A non-persistent agent will not remain at the incident site as long as a persistent agent. Obviously, if an agent is released inside an enclosed space, weather will not play a role and the persistency will normally increase.

• **Common Name** – Each of the agents has a complex chemical name based on its composition and formula. They also have a common name that you need to recognize.

• **Mechanism of Action** – The manner in which the body is affected by a chemical, biological, or radiological agent.

• **Rate of Action/Onset Time** – The rate of action or onset time is the period of time that elapses before a victim begins to show or feel the symptoms of the particular agent. For some agents, this time will be just a few seconds, in other cases it could be minutes to hours. Knowing onset time is important because it tells you how much time you have to react.

• **Symptoms** – Each of the agents will cause the victim to exhibit symptoms. In many cases, these symptoms can be recognized and provide an indicator of the type of agent.

• **Route of Entry** – The route of entry is the method via which the agent enters the body. Most of the agents will enter through the respiratory tract; that is, through inhalation. Some of the agents can also attack through the skin and eyes.

• **Toxicity** – Toxicity is the term used to indicate how much of a substance (one of the agents) is required to cause a specific effect, such as incapacitation or death. The amount of agent needed to cause an effect is
also referred to as a dose.

- **Flash Point** – Flash point is the lowest temperature at which a liquid can form an ignitable mixture in air near the surface of the liquid. The lower the flash point, the easier it is to ignite the material.

**Industrial Chemicals.**

The following chart lists four industrial chemicals, which were previously used as chemical warfare agents. These chemicals are used in the sanitation industry, the plastics industry, and the pesticide industry. All of these agents are generally respiratory agents and can be protected against by effective respiratory protection (i.e., self contained breathing apparatus (SCBA)), although skin contact with concentrated material may cause chemical burns. They are all exceedingly volatile and dissipate rapidly outdoors.

### Industrial Chemicals

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<th>Choking Agents*</th>
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<td>Chlorine/Phosgene</td>
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<td>Colorless Vapor</td>
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<td></td>
</tr>
<tr>
<td>Protection</td>
<td>Respiratory (skin)</td>
<td>Respiratory (skin)</td>
</tr>
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</table>

- **Choking Agents.** These are very irritating to the throat and lungs. When the agent comes in contact with the fluids in the lining of throat and lungs, it hydrolyzes to hydrochloric acid (HCl) which in turn burns the throat and lungs, causing them to secrete more fluid. As the air sacs in the lungs fill with fluid, they prevent an oxygen transfer to the blood stream and you ultimately die of oxygen starvation. Choking agents are a respiratory problem. There is no absorption through the skin, although if you get the liquid on you, it will burn and should be flushed off immediately. Exposure to a high concentration of chlorine vapor can also react with body moisture, causing serious burns and degradation to clothing.

Self aid for choking agents is simply getting out of the contaminated area and decontaminating by flushing with water.

- **Chlorine.** Chlorine was the first substance used effectively in warfare.
1. **Physical Appearance:** Chlorine is a greenish-yellow vapor

2. **Odor:** Chlorine has an odor similar to that of bleach

3. **Signs and Symptoms:** Irritation of the eyes and mucous membranes of the nose and throat, coughing, a feeling of suffocation, and tightness of the chest are all signs of chlorine exposure

4. **Protection:** The uses of a respiratory mask and protective clothing are necessary for this agent.

5. **Treatment:** Aeration is recommended for exposure to Chlorine.

b. **Phosgene.** Phosgene was the first substance used in projectiles.

   1. **Physical Appearance:** Colorless vapor

   2. **Odor:** Odor of newly mown hay

   3. **Signs and Symptoms:** This agent acts solely on the lungs and fills alveolar sacks with fluid; most deaths occur within 24 hours.

   4. **Protection:** The uses of a respiratory mask and protective clothing are necessary for this agent.

   5. **Treatment:** Aeration is recommended for exposure.

- **Blood Agents.**

There are two blood agents: Hydrogen Cyanide (AC) and Cyanogens Chloride (CK). Both are commercially available and used in various manufacturing processes and therefore obtainable to a terrorist. Both would probably be weaponized or packaged as liquids, but will rapidly vaporize once released into the atmosphere and be true gases at normal temperatures. AC is lighter than air and unlike the other agents, will rise. CK is heavier than air. Both are non-persistent and smell like bitter almonds.

Blood agents are inhalation threat agents, and once inhaled will take effect immediately. Victims will appear flushed (reddish skin), have red lips (blue in dark-skinned people), be gasping for air, be frothing or vomiting, and then will lose consciousness, or possibly die. This process will occur very rapidly.

There is no absorption through the skin, although if you get liquid on your skin and it doesn’t immediately evaporate, flush it off with water.

Blood agents block the normal transfer of oxygen from the blood stream to the individual body cells. Victims appear red because of the overabundance of oxygen in the blood. First aid is either to mask the victim or remove from the area. Antidotes are available for use by medical personnel. No decontamination is necessary.

Hydrogen Cyanide has a low flash point so if released by an explosive device, it could burn off.

a. **Hydrogen Cyanide.** The low vapor density and its propensity to ignite when explosively disseminated limit its uses. It is the only chemical warfare agent that is lighter than air.

   1. **Physical Appearance:** Colorless vapor

   2. **Odor:** The fragrance of bitter almonds.

   3. **Signs and Symptoms:** Lips, eyes, and skin will take on a pinkish-red color and breathing will become
increasingly difficult. Loss of consciousness, violent convulsions, and gasping for air are other symptoms a patient may exhibit. Death can occur within 15 minutes if there is continued contact with a lethal concentration.

4. **Protection**: The uses of a respiratory mask and protective clothing are necessary for this agent.

5. **Treatment**: Aeration and the use of a cyanide kit are necessary after contact.

b. **Cyanogens Chloride**. Gent is basically a higher density cyanide (heavier than air), with a less desirable toxicity.

1. **Physical Appearance**: Colorless vapor

2. **Odor**: The fragrance of bitter almonds.

3. **Signs and Symptoms**: Lips, eyes, and skin will take on a pinkish-red color and breathing will become increasingly difficult. Loss of consciousness, violent convulsions, and gasping for air are other symptoms a patient may exhibit. Death can occur within 15 minutes if there is continued contact with a lethal concentration.

4. **Protection**: The uses of a respiratory mask and protective clothing are necessary for this agent.

5. **Treatment**: Aeration and the use of a cyanide kit are necessary after contact.

### Chemical Warfare Agents

- **Blister Agents**. Some chemical warfare agents are classified as “blister agents”. Although they are all relatively toxic and can easily be lethal, the original intent was for the production of painful casualties which need considerable medical care as a consequence of damage to the skin. The following chart shows one example of each of the blister agent types:
Mustard. Skin blisters break, leaving large open wounds; however, additional blisters are not created from the fluid of broken blisters. The physiological action of mustard agent produces extreme irritation of the eyes, respiratory tract, and skin.

a. Sulfur Mustard.

1. Odor: Has the odor reminiscent of garlic.

2. Signs and Symptoms: Exposure may result in conjunctivitis, a reddening of the skin followed by the formation of blisters, normally within 6-12 hours, inflammation of the nose and throat, and a raspy cough with severe damage to the lungs.

3. Protection: Requires both respiratory protection and protective clothing. The mask will protect not only the respiratory tract, but also the eyes and face. This agent is absorbed by most clothing, which will then “off-gas”.

4. Decontamination: First aid involves removing all liquid agent from the skin immediately. Decontamination requires pinching or blotting agent off the skin rather than rubbing or wiping. After agent removal, flush with copious amounts of water. While any water is better than no water, best results for agent removal should be high volume low-pressure.


1. Odor: Has a fishy odor.

2. Signs and Symptoms: Vapor or liquid in the eyes will cause some tearing, burning, and a gritty feeling and inhalation will cause a raspy cough. Agent on the skin will cause delayed blisters similar to second-degree
burns, and moist areas of the body are most susceptible.

3. **Protection**: Requires both respiratory protection and protective clothing. The mask will protect not only the respiratory tract, but also the eyes and face. This agent is absorbed by most clothing, which will then “off-gas”.

4. **Decontamination**: First aid involves removing all liquid agent from the skin immediately. Decontamination requires pinching or blotting agent off the skin rather than rubbing or wiping. After agent removal, flush with copious amounts of water. While any water is better than no water, best results for agent removal should be high volume low-pressure.

- **Arsenical**.
  
  a. **Lewisite**.

  1. **Odor**: Has an odor like that of geraniums.

  2. **Signs and Symptoms**: This agent causes immediate eye irritation and permanent loss of vision if not decontaminated within one minute. Blistering will appear after 30 hours, and there will be searing pain in the lungs. This agent acts as a systemic poison, causing pulmonary edema, diarrhea, subnormal temperature, and low blood pressure.

  3. **Protection**: Requires both respiratory protection and protective clothing. The mask will protect not only the respiratory tract, but also the eyes and face. This agent is absorbed by most clothing, which will then “off-gas”.

  4. **Decontamination**: First aid involves removing all liquid agent from the skin immediately. Decontamination requires pinching or blotting agent off the skin rather than rubbing or wiping. After agent removal, flush with copious amounts of water. While any water is better than no water, best results for agent removal should be high volume low-pressure.

- **Nettle Agent**.

  a. **Phosgene Oxime**.

  1. **Odor**: Phosgene Oxime is a solid with a very disagreeable, irritating odor.

  2. **Signs and Symptoms**: This agent produces instant, almost intolerable skin pain and local tissue destruction. There will be violent irritation to the mucous membranes of the eyes and nose, as well as the lungs. Blisters and scabs will form as well.

  3. **Protection**: Requires both respiratory protection and protective clothing. The mask will protect not only the respiratory tract, but also the eyes and face. This agent is absorbed by most clothing, which will then “off-gas”.

  4. **Decontamination**: First aid involves removing all liquid agent from the skin immediately. Decontamination requires pinching or blotting agent off the skin rather than rubbing or wiping. After agent removal, flush with copious amounts of water. While any water is better than no water, best results for agent removal should be high volume low-pressure.

- **Blister Agents General Information**. The exact mechanism the blister agents use to create blisters is not fully understood; however, there is no doubt that they do in fact cause blisters. This irritation and blistering
can be caused by direct contact with liquid or with high vapor concentrations. The eyes and respiratory tract are very vulnerable. In the case of respiratory burning, the entire respiratory route is susceptible and the agent causes severe tissue irritation. The tissue in turn secretes fluids to attempt to counter this irritation, which in turn results in disruption of the oxygen transfer that normally occurs in the lungs, similar to choking agents. Victims are also very susceptible to pneumonia. The fluid from breaking blisters does not create new blistering, however, the open sores which result are susceptible to infection and take a long time to heal.

- **Nerve Agents.** Of all the agents, nerve agents are of the greatest concern because of their toxicity, rate of action, and ability to enter the body by multiple routes of entry. Nerve agents can be divided into G-series and V-series. The G-series nerve agents are the most likely of the nerve agents you may encounter.

### Nerve Agents

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Tabun, Sarin, Soman</th>
<th>V - Agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol</td>
<td>(GA) (GB) (GD)</td>
<td>(VX) (Vx)</td>
</tr>
<tr>
<td>Odor</td>
<td>Fruity</td>
<td>Sulfur</td>
</tr>
<tr>
<td>Symptoms</td>
<td>Pinpointing of pupils</td>
<td>Vomiting/diarrhea</td>
</tr>
<tr>
<td></td>
<td>Difficulty in breathing</td>
<td>Salivation</td>
</tr>
<tr>
<td></td>
<td>Salivation</td>
<td>Twitching</td>
</tr>
<tr>
<td></td>
<td>Convulsions</td>
<td></td>
</tr>
<tr>
<td>Protection</td>
<td>Respiratory and Skin</td>
<td></td>
</tr>
<tr>
<td>Self/First Aid</td>
<td>Atropine + 2-PAM Chloride</td>
<td></td>
</tr>
<tr>
<td>Decontamination</td>
<td>Removal; Flush with Water</td>
<td></td>
</tr>
</tbody>
</table>

- **Odor.** The nerve agents have been classically categorized as colorless and odorless. However, G-agents have the fruity aromas characteristic of most organo-phosphorus compounds and V-agents almost assuredly exhibit the “fishy-sulfurous” odor caused by the presence of small quantities of an impurity, mercaptan, which is readily detected by the human nose.

- **Symptoms.** The symptoms of nerve agent exposure are fairly recognizable: dimness of vision (pinpointing of pupils), runny nose, drooling, difficulty breathing/tightness of the chest, nausea, vomiting, and diarrhea, muscle jerking or twitching, involuntary urination and defecation, coma, and death. Depending on where the agent contacts the body, pinpointing of the pupils is not always seen. Depending on the concentration
and exposure time, effects can all occur within a few minutes.

- **Protection.** Protection from these agents requires full respiratory and skin protection.

- **Self/First Aid.** There are antidotes available and decontamination will work if you get it off your skin quickly.

- **Decontamination.** Flushing with water will work, but soap and water or dilute bleach solutions are better. However, these additives may not be readily available to the first responders. This factor, coupled with the need for performing decontamination within minutes in order to be effective, makes water the best solution for emergency responders. Any agent already absorbed into the skin or left on the skin will lead to nerve agent effects.

  For emergency decontamination, the benefit of quickly showering with high volume, low-pressure water outweighs extra removal capacity of a soap or bleach solutions.

- **Other Nerve Agent Compounds.** A number of other organo-phosphorus compounds have been found to have potent nerve agent-like effects and could be used by terrorists. Commercial insecticides, given enough concentration and the right disseminator, could well be used as nerve agents.

- **Exposure Versus Symptoms.** The below illustration depicts many, but not all, symptoms of nerve agent exposure for both vapor and liquid victim exposures. The term “SLUDGE”, bracketed in the box, is a term often used by medical personnel for identifying the symptoms of organo-phosphate poisoning. Symptoms of liquid agent exposure may be preceded by latent period of anywhere from minutes to as many as 18 hours. For this reason, victims known or suspected to have suffered a liquid exposure need to be monitored for up to 24 hours. Death can occur within a few minutes for vapor exposures and is dependent on the dose received.
## Exposure versus Symptoms

<table>
<thead>
<tr>
<th></th>
<th>Vapor Exposure</th>
<th>Liquid Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MILD</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P – Pinpointing Pupils</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>S – Salivation</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>L – Lacrimation (tearing)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>U – Urination</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><strong>SEVERE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D – Defecation</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>G – Gastrointestinal; pain and gas</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>E – Emesis (vomiting)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>M – Muscle Twitching</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C – Convulsions, Coma</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**P**  **Pinpointing Pupils.** This is the most frequent symptom seen in victims exposed to nerve agent vapor. In the absence of more severe nerve agent symptoms, pinpointed pupils would help distinguish mild nerve agent exposure from pepper spray exposure. Victims suffering from a liquid skin exposure of nerve agent will not have pinpointed pupils unless the nerve agent actually contacted the eye or immediate vicinity of the eye.

**S**  **Salivation.** Salivation is a mild effect of nerve agent poisoning. It is less likely to be seen in a liquid exposure victim. An associated and more widely seen symptom is rhinorrhea (runny nose).

**L**  **Lacrimation (tearing).** Lacrimation is also less likely to be seen in a liquid exposure victim.

**U**  **Urination.** Loss of bladder control is an indication of severe nerve agent exposure. If seen within the first several hours of a liquid exposure victim, it could mean more severe effects will follow.

**D**  **Defecation.** Same as for urination.

**G**  **Gastrointestinal (increase in secretions into GI tract).** Gastrointestinal effects, along with nausea and vomiting; are usually the first systemic effects of a liquid nerve agent exposure.
E  **Emesis (vomiting).** If seen within the first several hours of a liquid nerve agent exposure, it could mean more severe effects will follow.

M  **Muscle Twitching.** Local skin exposure to liquid nerve agent will result in localized muscle spasms. Generalized muscle twitches and jerking usually indicate a severe exposure to vapors (inhalation).

C  **Convulsions/Coma.** Convulsions are a classic indication of severe nerve agent exposure. Multiple convulsing victims would immediately distinguish nerve agent exposure from exposure to pepper spray. Convulsing victims need immediate medical intervention. Victims could also become comatose.

- **Additional Symptoms.** Additional symptoms of mild liquid exposure include tightness in the chest, twitching, and sweating at the site of exposure. Symptoms of severe vapor exposure include severe breathing difficulty and generalized muscular twitching.

- **Comparative Toxicity.** Using chlorine as a baseline:
  - Phosgene (CG) is about 6 times more toxic;
  - Hydrogen Cyanide (AC) is about 7 times more toxic;
  - Parathion, an insecticide ingredient, is about 12 times more toxic;
  - Mustard (H) is about 13 times more toxic; and
  - Sarin (GB) is about 200 times more toxic.

For skin toxicity, less than a pinhead of mustard agent will result in a small blister. Less than a pinhead of nerve agent can be lethal.

**Response Methodology.** For a chemical agent terrorism incident, the following general actions and relationships should be considered upon receiving the initial report.

- **Notifications.** The following notifications shall be made:
  - National Response Center (NRC)
  - Crisis Management Agencies
    - FBI and local/State Agencies
    - Department of State if incident is occurring outside Territorial Seas
  - Consequence Management Agencies (Notify as needed)
    - Local/State hazmat and health departments;
    - Local/State Emergency Management Agencies;
    - Local/State Environmental Agencies;
    - Department of Health and Human Services (HHS), Center for Disease Control (CDC), or Agency for Toxic Substances and Disease Registry (ATSDR);
    - National Institute of Occupational Safety and Health (NIOSH) and the Occupational Health and Safety Administration (OSHA);
    - Environmental Protection Agency (EPA);
• National Guard Civil Support Teams;
• Coast Guard National Strike Force;
• Private Sector Cleanup Contractors;
• Trustee Agencies; and/or
• Other stakeholders identified in Area Contingency Plans (ACP) or other local plans.

• **Removal/Recovery.** The following information provides information and guidance on containment, cleanup, decontamination, and disposal.

• **Post-Response/Remedial Activities.** As is the case with standard protocols for response to CERCLA substances under the NCP, the Coast Guard OSC actions will primarily be focused towards emergency response actions. Once the situation is stable and the event progresses into the remedial or restoration phase, and the Coast Guard OSC determines that the emergency has been abated and there is no longer an immediate threat, the Coast Guard OSC should transfer lead agency responsibility to the U.S. Environmental Protection Agency (EPA) for further non-emergency response action.

• **Chemical Agent WMD Response Flowchart.** The following is the progression of general events surrounding a potential or actual chemical agent terrorism event.
Coast Guard On-Scene Coordinator (OSC) Response to a WMD Chemical Agent Incident.

Report of a potential Chemical WMD Incident

Contact the FBI and Local/State LE – 911

Credible Threat?

Yes

Consequence Management

As part of the Criminal Investigation FBI/LE may:

- Control site access;
- Question witnesses and carryout other LE functions; and/or
- Call in DOD, hazmat teams, health/environmental responders, etc. to assist in securing/containing perceived threats.

No

Response Ends

FBI/LE continues investigation and manages evidence. Crisis agencies should allow Consequence agencies access to mitigate potential health and environmental threats.

CG Actions Taken O/S:

- Secure Scene
- Back-off and avoid exposure
- Determine people casualties and symptoms from a distance if possible
- Wait for LE
- Notify health and environmental agencies

Consequence agencies respond to mitigate potential health and environmental threats especially if people are symptomatic or there are overt WMD effects. Consider:

- Containing affected area;
- Evacuate unaffected people;
- Record and track affected people; and/or
- Secure WMD source.

FOSC allows local and private responders to address issues if capable and provides oversight.
Chemical WMD Planning Issues. One of the critical issues facing the Coast Guard OSC will be the availability of government or private sector resources that can do hot zone entry, cleanup, decon, and disposal. Local planners must identify hazmat contractors, local labs, government responders that may be able to address these response issues. For chemical agent response, consider:

- Approaching local hazmat contractors to determine who has capability;
- Become familiar with CG Strike Team and National Guard Civil Support Team capabilities as well as DOD and EPA resources that can assist with response;
- Know local health and hazmat team capabilities;
- Identify federal HHS/PHS agencies and their intended level of assistance for potential and actual incidents; and
- Victim evacuation procedures and immediate decon are vital in the aftermath of a chemical agent exposure. Fresh air and water may be the best first response.
9883 Radiological

Background.

Of the three types of threats (chemical, biological, or nuclear/radiological), a nuclear weapon explosion is considered the least likely for terrorist use; however, the potential exists for it to happen and even more potential exists for the use of radiological materials.

The detonation of an improvised nuclear device (IND) would be devastating; if successfully detonated, this would cause widespread explosive damage with a large release of radioactive particles.

A terrorist attack on a nuclear power plant could lead to a radiation accident. Look at Three-mile Island and Chernobyl as examples of the possible scenario events.

More likely than terrorist sabotage of a nuclear reactor or construction of a nuclear device would be the use of radiological materials to contaminate an area through the use of a radiological dispersal device (RDD), or the simple act of spreading the materials. An RDD is an explosive device that does not cause a nuclear reaction, but is designed to spread radioactive materials upon detonation. For example, in the case of the Greensboro, North Carolina, theft of Cesium-137, there is concern that this radiological material may be used to create a “dirty bomb.”

A simple radiological device (SRD) can be used to deliberately cause exposure to radioactive material without the use of an explosive device. This has been seen in the last few years in the form of hoaxes and actual plans.

Definitions.

- **Ionizing Radiation**: In its simplest definition, radiation can be defined as either electromagnetic or particulate emissions of energy from the disintegration of the nucleus of an atom. This energy, when impacting on or passing through material, including us, can cause some form of reaction.

- **Radioactive material**: This is simply any material, which is giving off some form of ionizing radiation.

- **Rem**: A unit of measurement relating to biological effect is the rem (Roentgen Equivalent Man). The term millirem (mrem) is used frequently, and is equivalent to 1/1000th of a rem.

- **Contamination**: Radioactive particles inappropriately located on or transferred to an object.

- **Exposure**: This occurs when something is subjected to the effects of ionizing radiation. The amount of exposure absorbed is referred to as the dose. The amount of exposure, or dose, is usually expressed in units of rem or mrem.

**Ionizing Radiation.** When ionizing radiation is absorbed by our bodies, it can cause changes to our cells. Small amounts can be tolerated; larger amounts can be harmful. For purposes of response, this radiation can be classified as:

- **Alpha particles**: Alpha particles are emitted from the nucleus of an atom and consist of 2 protons and 2 neutrons. They have a positive charge, limited range, and penetrating power. When an alpha particle is emitted from an atom, the releasing atom is changed. The atomic number decreases by 2 and the atomic weight decreases by 4. This "new" atom is normally radioactive.

- **Beta particles**: Beta particles are also emitted from the nucleus of an atom. They are similar to the electrons, which orbit the nucleus, have a negative charge, and depending on their energy, may have greater range and penetrating power than alpha particles. Atoms that emit beta particles also change, with their atomic numbers increasing by 1 and their atomic weights remaining the same. In the most basic of theories, a neutron breaks down, ejects an electron, and leaves one more proton in the nucleus.
• **Gamma radiation**: Gamma rays, as the name implies, are not particulate, but rather pure electromagnetic radiation, similar to x-ray, but at a higher energy level. Gamma rays have long ranges and significant penetrating power. When an atom emits gamma radiation, there is no atomic change to the nucleus.

• **Neutrons**: Neutrons can be the most immediately damaging type of ionizing radiation and can damage cells on contact. Neutrons can travel several hundred feet through air and can be slowed or stopped by hydrogenous materials like water, paraffin, or plastic. Neutrons can be found in commercial applications, such as soil density gauges, operating nuclear reactors, or calibration sources.

For our purposes of response, we are not as concerned with the mechanism of radiation as we are with the hazard, the detection of it, and protection from it. There are also non-ionizing types of radiation. Examples are: fluorescent light; lasers; and microwaves. In these examples, the radiation can cause burns but it does not cause molecular change or ionization.

**Common Radiation Exposures.**

The following chart reflects naturally occurring radiation doses (and doses received during normal activities) to provide a point of reference and for comparison. The threshold for any real consequences begins around 200,000 mrem. Mild radiation sickness (i.e., nausea, vomiting, and diarrhea) may onset after receiving a whole body dose of approximately 200,000 mrem in a short amount of time (generally less than 24 hours). The lethal dose, known as the LD50/60 is a single, acute, whole body exposure of around 450,000 mrem. The LD50/60 is defined when 50 percent of all people present at an incident receive 450,000 mrem and die after 60 days after receiving no medical treatment.

### Common Radiation Exposures

<table>
<thead>
<tr>
<th>Exposure Type</th>
<th>Annual Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average annual exposure</td>
<td>360 mrem per year</td>
</tr>
<tr>
<td>Chest x-ray</td>
<td>10 to 30 mrem</td>
</tr>
<tr>
<td>Flight</td>
<td>0.5 mrem every hour</td>
</tr>
<tr>
<td>Smoking 1.5 packs per day</td>
<td>16,000 mrem per year</td>
</tr>
<tr>
<td>Mild radiation sickness*</td>
<td>200,000 mrem</td>
</tr>
<tr>
<td>Lethal dose*</td>
<td>450,000 mrem</td>
</tr>
<tr>
<td>* single acute exposure</td>
<td></td>
</tr>
</tbody>
</table>

**DOE maximum annual occupational limit** = 5,000 mrem

**DOE maximum emergency dose**

- **(for saving property)** = 10,000 mrem
- **(for saving life)** = 25,000 mrem

**Radiation Exposure Limits**

The average annual radiation exposure has been calculated as:
Naturally occurring 295 mrem  
Medical 52 mrem  
Consumer products 10 mrem  
Other 3 mrem  
Total 360 mrem  

**Health Hazards In An Incident.**

The two radiation concerns at an incident are exposure and contamination by radioactive material. External irradiation occurs when all or part of the body is exposed to penetrating radiation from an external source. Contamination means that radioactive materials in the form of gases, liquids, or solids are released into the environment. These materials may contaminate people externally, get in them (internal), or both. Incidents involving either an explosion or fire will elevate the potential for internal or external contamination due to the spreading of the radioactive material in the form of small fragments (dust) or smoke. These materials can often be carried long distances downwind.

**NOTE:** Internal exposure through wounds or broken skin is also possible. Responders should take extra precautions when sharp objects, such as broken glass or jagged metal, are at the scene.

**Health Risks.** Risk depends upon several factors:

- **Amount:** The total amount of radiation received is called the dose. The larger the dose received, the greater the health risk becomes.
- **Rate:** The dose rate is the length of time over which the dose is received. Dose rate exposures are categorized as follows:
  - **Acute:** A large dose occurring over a short period of time (< 24 hours). Victims may begin to show symptoms within 24 hours, such as burns on the skin, vomiting, diarrhea, hair loss, unconsciousness, and convulsions.
  - **Chronic:** Small doses occurring over a long period of time (months or years). Chronic exposures normally pose a smaller health risk, with symptoms such as tumors, birth defects, cancer, and blood chemistry changes. These symptoms may be delayed for years.
  - **Type:** The specific types of radiation (i.e., alpha particles or beta particles versus gamma radiation versus neutrons) are discussed more fully in the WMD Installation Preparedness Technician-HAZMAT course.

**Protection.** The radiation exposure received will depend on the type and strength of the radiation source. This exposure can be mitigated by the effective use of:

- **Time:** The radiation dose is reduced in proportion to reduction of exposure time.
- **Distance:** Distance is also critical for reducing radiation exposure dose. While alpha particles only travel a little over an inch in air, and beta particles will travel only a few yards in air, gamma rays can travel extensive distances. As a result, gamma rays pose the greatest threat of external exposure. Responders will receive a smaller dose of radiation the farther away they are from the source. In the case of gamma rays from an unshielded point source, the intensity increases or decreases in proportion to the square of the distance from the source.
- **Shielding:** Radiation can also be blocked or reduced by various materials. Alpha radiation is stopped by a sheet of paper, beta radiation is stopped by aluminum foil or clothing, gamma rays are only reduced by dense materials such as lead or earth, and neutrons are slowed or stopped by hydrogenous materials, such as
wax or water. Do not shield neutron producing sources with lead or dense materials. Neutrons will produce gamma rays in reactions with the material. Use wax, water, or plastic.

Radiation Self-Protection. The amount of radiation exposure and the dose received will depend on the type and strength of the radiation source. This exposure can be stopped or reduced by the effective use of time, distance, and shielding. In order to avoid inhaling or ingesting radioactive materials, the Department of Energy recommends using a full-face respirator in any radiological contaminated area.

- Personal Protective Equipment. OSHA Level A or other chemical protective clothing will not affect whole-body exposure to gamma radiation from an external source. Lead-lined gloves and aprons are a form of shielding, which will reduce external gamma radiation exposure, but will not totally eliminate it. A respirator will provide adequate protection from inhalation of airborne radioactive particulate materials. This will lessen the potential for internal contamination and minimize exposure to radiation from an internal source. Respiratory protection will be covered in a later module.

- Time, Distance, and Shielding. The intent of using time, distance, and shielding as protection is to reduce the radiation exposure to a level as low as reasonably achievable. Due to background radiation and the need to have responders operating near the radiation source, not all of the radiation exposure can be completely eliminated.

- Exposure. As a rule of thumb, every time you double the distance away from a gamma point source, you reduce the exposure rate by four times. When radiological materials are widely dispersed, the safest course is to base the response and/or protective actions on instrument readings.
  - Alpha particles travel approximately 1 to 2 inches in air and cannot penetrate unbroken skin or paper.
  - Beta particles travel approximately 10 feet in air and can penetrate a few millimeters of tissue. They can be stopped by light layers of clothing, aluminum foil, or an average book.
  - Gamma rays travel several hundred feet in air and can penetrate the human body. Intensity is reduced by heavy, dense materials such as steel, concrete, earth, or lead.
  - Neutrons can travel several hundred feet in air and are very damaging to cells. They can be slowed or stopped by water, paraffin, or plastic.

Nuclear/Radiological WMD Incident Response - Background. The management of the consequence phase of a nuclear/radiological WMD incident would occur under FEMA and the National Response Plan (NRP) is a federal disaster declaration is made. Without a declaration, we would defer to the National Oil and Hazardous Substance Pollution Contingency Plan (NCP) and the National Radiological Emergency Response Plan (NRERP) for direction on establishing a lead agency and response to the environmental and health/welfare issues surrounding the response.
The National Radiological Emergency Response Plan (NRERP) is an agreement among 17 Federal departments and agencies for responding to any peacetime radiological emergency that has actual, potential, or perceived radiological consequences within the U.S., its territories, possessions, or territorial waters. Responses to emergencies occurring at nuclear facilities or involving radioactive materials, including nuclear weapons, regardless of the amount, fall within the scope of this plan. The NRERP applies simultaneously with the NCP during radiological releases (except for some Nuclear Regulatory Commission [NRC]-licensed nuclear reactor incidents that are exempt from the Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA], the statute which forms the basis of the NCP provisions on hazardous substance response). The NRERP is always in effect and is ready to be used by Federal departments and agencies responding to peacetime radiological emergencies, assisting state and local organizations in protecting public health and safety. This plan does not create new authorities or change existing authorities. Specifically, the NRERP:

- Provides for, and defines the role and responsibility of an On-Scene Commander;
- Identifies the title of Lead Federal Agency (LFA) and describes the LFA’s role;
- Identifies the Federal agencies that provide support to the LFA during a radiological response and establishes their respective roles during the response;
- Establishes the level of support undertaken by the Federal government during a radiological response (i.e., the Federal government supports state and local governments); and
- States that each department or agency (except for the General Services Administration and, in some cases, the Department of Veterans Affairs) fund its own radiological response activities.

The NRERP assigns five signatory Federal departments or agencies the role of LFA, depending on the type of emergency in question. These five departments and agencies are the NRC, the Department of Defense (DOD); the Department of Energy (DOE); the Environmental Protection Agency (EPA); and the National Aeronautics and Space Administration (NASA). Once the LFA role for a specific emergency is identified, the LFA agency has several responsibilities under the NRERP, including:

- Leading and coordinating all Federal on-scene response actions during a radiological response. The LFA will coordinate the response actions from an on-scene location known as the Joint Operations Center (JOC). If the LFA has not yet established its base of operations in a JOC, then the LFA will accomplish the coordination of response actions from another LFA facility, usually a Headquarters operations center;
- Maintaining cognizance of the Federal radiological response by conducting and managing the Federal on-site actions;
- Coordinating Federal off-site radiological monitoring and assessment;
- Developing and evaluating recommendations for off-site radiological protective actions;
- Presenting recommendations for off-site radiological protective actions to the appropriate state and/or local officials;
- Developing situation reports on the radiological aspects of the emergency and the Federal response;
• Coordinating the release of Federal information on the radiological aspects of the event to the public;

• Providing reports to the President and keeping the White House informed on the radiological aspects of the emergency; and

• Performing preliminary radiological damage assessments with the Federal Emergency Management Agency (FEMA) to assist the state in preparing a request for a Presidential declaration of emergency in accordance with the Stafford Act and the National Response Plan.

**National Oil and Hazardous Substances Pollution Contingency Plan (NCP).**

The NCP is a Federal regulation that provides the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants. The NCP also adopts the FRERP LFA and support agency roles. As such, each NCP agency looks to the FRERP for its specific mission during radiological responses. Federal departments and agencies are directed to coordinate their planning, preparedness, and response activities. In addition, the NCP is an important component of the National Response System and is applicable to:

- Releases of hazardous substances (including radionuclides), and pollutants or contaminants that may present an imminent and substantial danger to the public health or welfare or the environment; and

- Discharges of oil into or on the navigable waters of the U.S., on the adjoining shorelines, the waters of the contiguous zone, into waters of the exclusive economic zone, or that may affect natural resources belonging to, or under the exclusive management authority of, the U.S.

The NCP also:

- Provides for, and defines the roles and responsibilities of, an On-Scene Coordinator. The On-Scene Coordinator is responsible for coordinating the response to the discharge or release of oil or hazardous substances, including radionuclides.

Section 300.130(f) of the NCP states that “Where appropriate, when a discharge or release involves radioactive materials, the lead or support federal agency shall act consistent with the notification and assistance procedures described in the appropriate Federal Radiological Plan. For the purpose of the NCP, the FRERP is the appropriate plan.”

Under section 104(a)(4) of CERCLA, “the President may respond to any release or threat of release if in the President’s discretion, it constitutes a public health or environmental emergency and no other person with the authority and capability to respond to the emergency will do so in a timely manner.” The term “President” refers to the President of the United States, as well as (1) any officer, employee, or representative of the President, and (2) any duly designated officer, employee, or representative of a state or political subdivision. Executive Order 12580 delegates the CERCLA section 104 response authority and other CERCLA authorities to those agencies (e.g., EPA and NRC) and their employees (the On-Scene Coordinators or Commanders) that are responsible for responding to a discharge of oil or a release of a hazardous substance (including radionuclides). In addition, Section 311(c)(2)(A) of the Clean Water Act states that “if a discharge, or substantial threat of a discharge, of oil or a hazardous substance from a vessel, offshore facility, or onshore facility is of such a size or character as to be a substantial threat to the public health or welfare of the United States (including but not limited to fish, shellfish, wildlife, other natural resources, and the public and private beaches and shorelines of the United States), the President shall direct all Federal, state, and private actions to remove the discharge or to mitigate or prevent the threat of the discharge.” It should be noted that this section of the NCP applies only to discharges of oil and hazardous substances listed under section 311 of the Clean Water Act, which does not include radionuclides.
Coordinator generally is responsible for directing response efforts at the scene of a discharge or release;

- Identifies the title of Lead Agency (LA) and describes the LA’s role;
- Identifies the agencies that support the LA and establishes their response roles;
- Provides regulations for conducting response actions;
- Authorizes response funding (Superfund monies for EPA/U.S. Coast Guard [USCG] activities, but not for other Federal LAs);
- Provides for an Incident Command System/Unified Command (ICS/UC) response structure; and
- Provides assistance to state and local agencies in protecting the health and safety of the public within the geographic area of the incident, accident, or event.

ICS/UC is a necessary tool for: (1) managing multi-jurisdictional responses to discharges of oil or releases of hazardous substances; (2) creating organizational links between the participants and organizations that respond to a discharge of oil or a release of a hazardous substance; and (3) developing a common set of incident objectives and strategies. ICS/UC participants and organizations include: (1) the Federal On-Scene Coordinator (FOSC), who maintains authority; (2) the state On-Scene Coordinator; (3) the local incident commander; and (4) the responsible party.

The NCP assigns the role of LA to various Federal departments and agencies (e.g., EPA, USCG, DOD, and DOE), depending on the particular type of radiological emergency. EPA is typically the LA for inland areas, while the USCG is typically the LA for coastal areas. If the emergency occurs on a Federal site, then the Federal department or agency owning or operating the site is normally the LA. Once a Federal department or agency assumes the LA role for a specific emergency, that agency assumes many responsibilities under the NCP. These include:

- Leading the National Response Team (NRT) and the incident-specific Regional Response Team (RRT) when these two organizations function as response organizations;
- Assigning the Federal On-Scene Coordinator;
- Collecting pertinent facts about the emergency, such as (1) the source and/or cause of the emergency, and (2) the nature, amount, location, and potential impact of released materials;
- Identifying those individuals responsible for the emergency;
- Documenting the costs associated with responding to the emergency;
- Designating capable individuals from Federal, state, and local agencies to act as on-scene representatives for the LA;
- Evaluating information and advising FEMA of potential major disaster situations;
• Addressing worker health and safety concerns at the emergency scene;

• Submitting reports to the RRT and other appropriate agencies as significant developments occur during the emergency response;

• Ensuring that all appropriate public and private interests are kept informed and that their concerns are considered throughout the emergency response; and

• Protecting the health and safety of the public within the geographic area of the incident, accident, or event.

• Response to Radiological Releases Under the NCP and the NRERP. As mentioned above, the key issue concerning the relationship between the NCP and the NRERP is that both plans apply simultaneously during radiological responses. As such, coordination is needed between these two plans. Table 1 applies response solutions to various radiological response scenarios by identifying specific types of radiological emergencies, as well as the “designated” NRERP LFAs and NCP LAs for each type of emergency. Table 1 also identifies the designated Federal organization that will assume the role of coordinating the response to each type of emergency.
Table 1. Agency Authority Designation for Specific Radiological Emergencies

<table>
<thead>
<tr>
<th>Type of Emergency</th>
<th>Designated NRERP LFA</th>
<th>Designated NCP LA</th>
<th>Designated Lead Responding Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Nuclear Facility</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Owned or Operated by DOD or DOE&lt;sup&gt;6&lt;/sup&gt;</td>
<td>DOD or DOE</td>
<td>DOD or DOE</td>
<td>DOD or DOE</td>
</tr>
<tr>
<td>b. Licensed by NRC or Agreement State&lt;sup&gt;7&lt;/sup&gt;</td>
<td>NRC</td>
<td>EPA&lt;sup&gt;8&lt;/sup&gt;</td>
<td>NRC</td>
</tr>
<tr>
<td>c. No Licensed, Owned, or Operated by a Federal Agency or an Agreement State&lt;sup&gt;9&lt;/sup&gt;</td>
<td>EPA</td>
<td>EPA</td>
<td>EPA</td>
</tr>
<tr>
<td><strong>2. Transportation of Radioactive Material</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Materials shipped by or for DOD or DOE</td>
<td>DOD or DOE</td>
<td>DOD or DOE</td>
<td>DOD or DOE</td>
</tr>
<tr>
<td>b. Shipment of NRC or Agreement State-licensed Materials in the inland zone</td>
<td>NRC</td>
<td>EPA</td>
<td>NRC</td>
</tr>
<tr>
<td>c. Shipment of NRC or Agreement State-licensed Materials in the coastal zone</td>
<td>NRC</td>
<td>USCG</td>
<td>NRC</td>
</tr>
<tr>
<td>d. Shipment of Materials, in the inland zone, that are not licensed or owned by a Federal agency or Agreement State</td>
<td>EPA</td>
<td>EPA</td>
<td>EPA</td>
</tr>
<tr>
<td>e. Shipment of Materials, in the coastal zone, that are not licensed or owned by a Federal agency or Agreement State</td>
<td>EPA</td>
<td>USCG</td>
<td>EPA</td>
</tr>
<tr>
<td><strong>3. Satellites Containing Radioactive Materials</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Radioactive materials owned by DOD</td>
<td>DOD</td>
<td>DOD</td>
<td>DOD</td>
</tr>
</tbody>
</table>

<sup>6</sup> The emergencies at these facilities may involve reactor operations, nuclear material, and weapons production, radioactive material from nuclear weapons, or other radiological activities.

<sup>7</sup> These facilities include, but are limited to, commercial nuclear power reactors, fuel cycle facilities, DOE-owned gaseous diffusion facilities that are operated under NRC regulatory oversight, and radiopharmaceutical manufacturers.

<sup>8</sup> EPA is not the designated NCP LA if a release, resulting from a nuclear incident, is subject to the financial protection requirements established by the Nuclear Regulatory Commission under the Price-Anderson amendments to the Atomic Energy Act. Releases of this type are excluded from CERCLA and NCP requirements.

<sup>9</sup> These facilities possess, handle, store, or process radium or accelerator-produced radioactive material.
<table>
<thead>
<tr>
<th></th>
<th>Radioactive materials owned by DOE</th>
<th>DOE</th>
<th>DOE</th>
<th>DOE</th>
</tr>
</thead>
<tbody>
<tr>
<td>c.</td>
<td>Radioactive materials controlled by NASA (inland)</td>
<td>NASA</td>
<td>EPA</td>
<td>EPA</td>
</tr>
<tr>
<td>d.</td>
<td>Radioactive materials controlled by NASA (coastal)</td>
<td>NASA</td>
<td>USCG</td>
<td>USCG</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>4. Impact from Foreign or Unknown Sources of Radioactive Materials&lt;sup&gt;10&lt;/sup&gt;</th>
<th>EPA</th>
<th>EPA</th>
<th>EPA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5. Other Types of Emergencies</td>
<td>LFA’s confer</td>
<td>per NCP</td>
<td>per NCP until Conference&lt;sup&gt;11&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

**Response Methodology.** For a nuclear/radiological terrorism incident, the Coast Guard is not the lead agency for consequence management under the NCP or NRERP. However, in the coastal zone the Coast Guard may be a first federal official involved with the incident and should consider the following notifications and actions upon receiving the initial report.

- **Discovery and Surveillance.**

  **Agency Surveillance.** Frequently, Customs and other port officials have received readings on their surveillance equipment during container inspections. This may happen from time-to-time. Geiger equipment can have a false-positive reading or react to ore, mining equipment, radon, or other materials being shipped. Notifications should be made and local hazmat teams will usually maintain the lead on-scene during the assessment/investigative phase.

  **Coast Guard Surveillance.** Currently the Coast Guard does not have a formal radiological surveillance program for our port security mission. Radians and other Geiger equipment have been procured for the Coast Guard for specific missions with either the Special Interest Vessel (SIV) or the cutter chemical, biological and radiological protective programs. Units shall not use this equipment for anything other than their original intended use. Regardless of intended objectives and goals to form or control surveillance perceptions within the port, the use of overt radiological survey equipment is unsafe and places personnel in danger if a proper and complete program is not in place. The following issues should be considered in the formation of a proper surveillance program:

  - Purchase and update of equipment;
  - Frequent maintenance and calibration program;
  - Proper medical monitoring program that includes radiation exposure surveillance monitoring;
  - Consistent and standardized training program;
  - Agency accepted exposure levels; and
  - Exposure medical support and plan.

<sup>10</sup> A foreign or unknown source may refer to a reactor (e.g., Chernobyl), a spacecraft containing radioactive material, radioactive fallout from atmospheric testing of nuclear devices, imported radioactive contaminated material, or a shipment of foreign-owned radioactive material. Unknown sources of radioactive material refers to that material whose origin and/or radiological nature is not yet established. These types of sources include contaminated scrap metal or abandoned radioactive material.

<sup>11</sup> The pre-designated OSC under the NCP will lead the response until the Lead Federal Agencies and the NCP OSC can confer to recommend which Federal organization should be designated to lead the overall response. In the event that the conferees recommend a change, the overall lead for the response will transfer to the organization recommended by the conferees.
Absent the coverage of the above issues and the creation of a national Coast Guard program to properly support this mission, units should adhere to the present policies concerning entry, inspections/examinations, response, and worker protection as they pertain to carrying out various Coast Guard missions.

**Discovery.** If Coast Guard personnel discover what they suspect may be a radiological or nuclear incident, they shall follow the current procedures of removing themselves from potential contaminated areas and shall not enter until the federal OSC makes a safe to enter determination. Proper notifications shall be made to activate or inform interested agencies of the possible/potential incident.

- **Notifications.** The following notifications shall be made:
  - National Response Center (NRC)
  - Crisis Management Agencies
    - FBI and local/State Agencies
    - Department of State if incident is occurring outside Territorial Seas
  - Consequence Management Agencies (Notify as needed)
    - Local/State hazmat and health departments;
    - Local/State Emergency Management Agencies;
    - Local/State Environmental Agencies;
    - Environmental Protection Agency (EPA) – Will be the lead environmental agency if the source does not have DOE/NRC or DOD oversight;
    - EPA Emergency Response Team (ERT);
    - Department of Defense;
    - Department of Energy/Nuclear Regulatory Commission;
    - Department of Health and Human Services (HHS), Center for Disease Control (CDC), or Agency for Toxic Substances and Disease Registry (ATSDR);
    - National Institute of Occupational Safety and Health (NIOSH) and the Occupational Health and Safety Administration (OSHA);
    - National Guard Civil Support Teams;
    - Coast Guard National Strike Force;
    - Private Sector Cleanup Contractors;
    - Trustee Agencies; and/or
    - Other stakeholders identified in Area Contingency Plans (ACP) or other local plans.

- **Removal/Recovery.** The Coast Guard is not the lead agency for a nuclear/radiological incident or release. EPA is the lead agency for environmental and health/safety issues for all coastal and inland incidents except if the source of the radiological or nuclear incident originates from DOE/NRC or DOD controlled material.

- **Post-Incident/Remedial Activities.** These activities should be accomplished in accordance with lead agency procedures.

- **Radiological/Nuclear WMD Response Flowchart.** The following is the progression of general events surrounding a potential or actual radiological or nuclear terrorism event.
Coast Guard On-Scene Coordinator (OSC) Response To a WMD Radiological Incident

**Report of a potential Radiological WMD Incident**

- Contact the FBI and Local/State LE – 911

**Contact the FBI and Local/State LE – 911**

**Credible Threat?**

- Yes
  - **Crisis Management**
    - As part of the Criminal Investigation FBI/LE may:
      - Control site access;
      - Question witnesses and carryout other LE functions; and/or
      - Call in hazmat teams, health/environmental responders, etc. to assist in securing/containing perceived threats.
    - FBI/LE continues investigation and manages evidence. Crisis agencies should allow Consequence agencies access to mitigate potential health and environmental threats.

- No
  - Response Ends

**CG Actions Taken O/S:**

- Secure Scene
- Back-off and avoid exposure
- Determine people casualties and symptoms from a distance if possible
- Wait for LE
- Notify health and environmental agencies
- Local hazmat teams will respond initially
- EPA shall be notified.

**Consequence Management**

Although Crisis Management has the lead, if the threat is credible, health & environmental response agencies would normally mount a simultaneous response. The USCG is not a Lead Agency under the NRERP for radiological response…refer fed lead to EPA:

- Local hazmat teams, health departments, etc. would respond dependent on scenario;
- If local and State resources request federal assistance or incident occurs solely in federal jurisdiction federal agencies would respond – Lead Agency would be the EPA unless the source is from DOD or DOE/NRC material; or
- Coast Guard resources shall keep at a safe distance until the all clear is given.

**Consequence agencies respond to mitigate potential health and environmental threats especially if people are symptomatic or there are overt WMD effects. Consider:**

- Containing affected area;
- Evacuate unaffected people;
- Record and track affected people; and/or
- Secure WMD source.

LFA allows local and private responders to address issues if capable and provides oversight.
Radiological WMD Planning Issues. One of the critical issues facing the Coast Guard personnel will be the availability of the proper LFA for a radiological incident. For a radiological response, consider:

- The identification of a process to quickly engage the proper federal agency (i.e., EPA, DOD, or DOE/NRC) to mitigate the consequence connected to the incident.
- Care shall be taken to ensure that Coast Guard resources and personnel are not exposed.
- Note that if the material is controlled by the Price-Anderson Act, that CERCLA cannot be the funding stream to support the response.
9884 Explosives and Other Devices

Background.

- **BE ALERT FOR SECONDARY DEVICES**
  - **One or more secondary devices may be present at or near the incident site:** A terrorist who has used a WMD terrorism device is likely to also use one or more secondary devices to hamper response efforts. REMEMBER: The purpose of secondary devices is to injure and/or kill first responders.
  - **Secondary devices may be conventional explosives or WMD:** Terrorists may employ secondary devices that use conventional explosives, or the secondary device may employ radiological materials or biological or chemical agents.

Response Methodology. For a conventional terrorism incident, the Coast Guard is not the lead agency for consequence management. However, in the coastal zone the Coast Guard may be a first federal official involved with the incident and should consider the following notifications and actions upon receiving the initial report.

- **Discovery.** If Coast Guard personnel discover what they suspect may be a conventional WMD device, they shall follow the current procedures of removing themselves from the potential area and shall not enter until a safe to enter determination has been made by the lead crisis management agency or proper state/local or federal authority. Proper notifications shall be made to activate or inform interested agencies of the possible/potential incident.

- **Notifications.** The following notifications shall be made:
  - National Response Center (NRC)
  - Crisis Management Agencies
    - FBI and local/State Agencies
    - Bureau of Alcohol, Tobacco, and Firearms (ATF)
    - Department of State if incident is occurring outside Territorial Seas
  - Consequence Management Agencies (Notify as needed)
    - Local/State bomb disposal units/teams;
    - Local/State Emergency Management Agencies;
    - ATF
    - Department of Defense, EOD, etc.; and/or
    - Other stakeholders identified in local plans.

- **Removal/Recovery.** The Coast Guard is never the lead agency for this type of response. Local/State bomb disposal or proper federal agencies (i.e., ATF, DOD EOD, etc.) will take the lead.

- **Post-Incident/Remedial Activities.** These activities should be accomplished in accordance with lead agency procedures. As experienced during the World Trade Center (WTC) response, there may be a multitude of health/welfare and environmental issues or impacts as a result of a conventional WMD explosion or destruction. Environmental response and cleanup as well as the health and safety issues surrounding this type of event should be addressed either by NRP/ESF #10 supported actions if FEMA has been activated or under the NCP for undeclared responses.
**Conventional WMD Response Flowchart.** The following is the progression of general events surrounding a potential or actual WMD conventional event. *See next page.*

**Coast Guard On-Scene Coordinator (OSC) Response to a Conventional WMD Incident**

1. **Report of a potential Conventional WMD Incident**
   - Contact the FBI and Local/State LE – 911

2. **Credible Threat?**
   - Yes: **Consequence Management**
     - Crisis Management has the lead, if the threat is credible.
     - Consequence Management is lead by bomb disposal teams, EOD and other conventional weapon agencies. These response agencies would normally mount a simultaneous response. The USCG is never a Lead Agency.
     - Coast Guard resources shall keep at a safe distance until the all clear is given.

   - No: **Coast Guard Actions Taken O/S:**
     - Back-off to a safe distance
     - Wait for LE
     - Notify local bomb teams and EOD

3. **Response Ends**

4. **FBI/LE continues investigation and manages evidence. Crisis agencies should allow Consequence agencies access to mitigate potential health and environmental threats.**
Conventional WMD Planning Issues. One of the critical issues facing the Coast Guard personnel will be having the proper bomb squad and other federal resources identified in existing plans:

- The identification of a process to quickly engage the proper state, local or federal agency to mitigate the consequence connected to the incident.
- Care shall be taken to ensure that Coast Guard resources and personnel are positioned in safe areas.
Conventional WMD Background and Preparation.

- **Background.**
  Bombs or other conventional WMD devices can be constructed to look like almost anything and can be placed or delivered in any number of ways. The probability of finding a bomb that looks like the stereotypical bomb is almost nonexistent. The only common denominator that exists among bombs is that they are designed or intended to explode.

  Most bombs are homemade and are limited in their design only by the imagination of, and resources available to, the bomber. Let the trained bomb technician determine what is or is not a bomb. As we have witnessed in the World Trade Center (WTC) incident, other delivery methods (i.e., transportation modes, etc.) can be used as a conventional WMD source.

- **Preparation/Planning.**
  Through proper preparation and planning you can identify those areas within the port that can be “hardened” against the potential bomber. This will limit the amount of time lost to focusing on lower risk areas of the port. If a bomb incident occurs, proper planning will instill confidence in the leadership, reinforce the notion that those in charge do care, and reduce the potential for personal injury and property loss.

  Proper planning can also reduce the threat of panic, the most contagious of all human emotions. Panic is sudden, excessive, unreasoning, infectious terror. Once a state of panic has been reached, the potential for injury and property damage is greatly increased. In the context of a bomb threat, panic is the ultimate achievement of the terrorist.

- **Coast Guard Consequence Management Responder Actions.**
  As stated earlier, the Coast Guard is not lead agency for conventional WMD consequence response. However, as a first responder who may happen to be in the port or on a vessel during the receipt of a threat or an actual occurrence, Coast Guard personnel should back-off their present mission, make the proper notifications, and wait until the “safe to respond” is provided by the lead agency.

  **Searches.**
  It is a common practice to use area occupants to perform the first sweep or search of their work spaces, building, property, vessel, etc. upon the receipt of a credible threat. However, the use of Coast Guard personnel to conduct searches or sweeps of private sector facilities, vessels, or other areas unfamiliar to the member should be avoided. The advantage of using an area occupant is to quickly discover objects or situations that look “out of place”. Without a familiarity of the area sweeps/searches can be dangerous or of little value. A search conducted by a trained team is the best for safety, morale, and thoroughness, though it does take the most time.

  It is imperative that personnel involved in a search be instructed that their only mission is to search for and report suspicious objects. Under no circumstances should anyone move, jar, or touch a suspicious object or anything attached to it. The removal or disarming of a bomb must be left to the professionals in explosive ordnance disposal.
9885 Health Related Responses

For those WMD agents/substances that create health risks and problems but do not create a persistent environmental threat, the health agencies will be expected to take the lead.

WMD Incident Funding

Funding When There is No Federal Declaration and NRP Activation.

CERCLA Funded Response Under the NCP. The NCP shall be the guiding document for an OSC when there is an actual or threat of a WMD incident and a response is needed to support consequence management actions of protecting the public health and welfare and the environment. When responding as an OSC under the NCP edict, the CERCLA Fund shall be used to support response actions when the suspected incident involves an unknown/confirmed agent or substance or involves a CERCLA listed substance. If the substance is initially unknown, it is important to ensure, once the substance is confirmed, that the substance is either a CERCLA listed substance or an EPA designated CERCLA pollutant/contaminant. If the substance is neither and a WMD response is warranted, the OSC shall approach the EPA to make a determination to include the substance under CERCLA.

CERCLA Fund Administration. The use and documentation of the CERCLA Fund shall be accomplished using the same procedures designed for hazardous substance releases.

Funding When There is a Federal Declaration and the NRP has been Activated.

Stafford Act Reimbursement.
The Stafford Act Fund shall be used when made available by FEMA to carryout consequence management response to an actual or threatened WMD incident in support of Emergency Support Function (ESF) #10. Funding will occur in the following manner.

• Agencies respond under their funding in accordance with PDD-39

• If the President directs FEMA to use Stafford Act authorities, FEMA will issue mission assignments through the FRP to support consequence management.
  – Federal agencies may be reimbursed.

• In support of consequence management objectives, if mission-assigned by FEMA, the following actions would generally be funded:
  – Pre-deploy if consequences are “imminent.”
  – Assess damage if consequences occur.

Respond following a presidential declaration.

Stafford Act Fund Administration. In support of Coast Guard OSC actions under ESF #10 the funding process shall follow the procedures set forth in the following Seventh Coast Guard District (m) Policy Letter 02-01 dated November 26, 2001.

9886 WMD Specific Response Resources
### 9886.1 Crisis Management Resources/Capabilities

<table>
<thead>
<tr>
<th>Agency and Information Contacts</th>
<th>Advisory/Technical Assistance</th>
<th>Equipment</th>
<th>Transportation &amp; Response Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Federal Bureau of Investigation (FBI)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Incident Response Group (CIRG)</td>
<td>Developed to integrate tactical and investigative resources and expertise for critical incidents – Consists of below teams.</td>
<td>N/A</td>
<td>Located: Quantico, VA</td>
</tr>
<tr>
<td>Crisis Negotiation Unit (CNU)</td>
<td>Provides immediate response capability to conduct and manage on-scene negotiations</td>
<td>N/A</td>
<td>Located: Various field offices</td>
</tr>
<tr>
<td>Crisis Management Unit (CMU)</td>
<td>Provides operational support to FBI field and headquarters entities during major incidents</td>
<td>N/A</td>
<td>Located: Quantico, VA</td>
</tr>
<tr>
<td>Rapid Deployment Logistics Unit (RDLU)</td>
<td>Coordinates administrative and logistical matters for deploying and supporting any of the Rapid Deployment Teams. Coordinates all military and commercial airlift deployment requirements</td>
<td>N/A</td>
<td>Located: Quantico, VA</td>
</tr>
<tr>
<td>Hostage Rescue Team (HRT)</td>
<td>Full time, national level tactical team</td>
<td>N/A</td>
<td>Located: Quantico, VA Deployable within 4 hrs of call up</td>
</tr>
<tr>
<td><strong>Bureau of Alcohol, Tobacco, and Firearms (ATF)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Response Team</td>
<td>Provide investigative support to any incident involving explosives. Trained up to Level A HAZMAT</td>
<td>120 members throughout various field offices</td>
<td>On scene within 24 hrs.</td>
</tr>
</tbody>
</table>
# 9886.2 Hazardous Substance, Chemical, and Biological Response Resources/Capabilities

<table>
<thead>
<tr>
<th>Agency and Information Contacts</th>
<th>Advisory/Technical Assistance</th>
<th>Equipment</th>
<th>Transportation &amp; Response Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CDC</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 24-Hour CDC Emergency Response Coordination Group  (770) 488-7100 | In the area of hazardous substance response, CDC can provide technological assistance in the following areas:  
· Human health threat assessment  
· Exposure prevention  
· Worker safety  
· Toxicology  
· Epidemiology  
· Public communication; and  
· Provision of treatment protocols | N/A |                                |
| **DOD**                         |                                |           |                                |
| Paul Hankins  
(703) 607-2753 | DOD maintains a hazardous substance response team at Chemical Biological Defense Command (CBDCOM) (U.S. Army) in Aberdeen, MD. This team is available through a request to the Joint Staff, J-3, and Western Hemisphere. They are trained principally to respond to chemical or munitions spills associated with a DOD activity.  
Any DOD medical capability would be accessed through the Joint Staff, J-3, Western Hemisphere and the appropriate State Department and/or military channels. The National Disaster Medical System (NDMS) is headed by the Department of Health and Human Services and has primary responsibility for Emergency Support Function (ESF) #8, Health and Medical Services, of the Federal Response Plan (NRP). Similar relationships between departments would be maintained and are found in other parts of the NRP. | The CBDCOM hazmat teams are fully outfitted to respond to a spill event. Their availability, however, is subject to CBDCOM’s mission requirements and deployment schedule.  
Each Service has a variety of medical capabilities. Specific requirements would be channeled through the Joint Staff, J-3, Western Hemisphere for appropriate staffing and tasking coordination. | | |
| CAPT Raymond S. McCord  
(703) 607-2753 | | | |
<p>| <strong>U.S. Marine Corps Chemical – Biological Incident Response Force</strong> | Provides force protection or mitigation in the event of a terrorist incident, domestically or overseas. | 373 dedicated personnel at Indian Head, MD | Travels by military aircraft or ground transportation. Initial team deploys in 6 hours and remainder of team deploys in 24 hours. |</p>
<table>
<thead>
<tr>
<th>Agency and Information Contacts</th>
<th>Advisory/Technical Assistance</th>
<th>Equipment</th>
<th>Transportation &amp; Response Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24-Hour DOE Headquarters</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Emergency Operations Center</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>(202) 586-8100</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>EPA</strong></td>
<td>Technical expertise and</td>
<td>Some response equipment potentially available through contractors, however, some contracts do not cover responses on foreign soil and new contracts may be required when the need arises. The EPA’s ERT can provide access to the following equipment:</td>
<td>Travels by commercial aircraft. Expected to deploy within 6 hours and arrive within 12 to 24 hours.</td>
</tr>
<tr>
<td>EPA Emergency Operations</td>
<td>scientific support coordination can be provided for inland areas. The EPA’s Environmental Response Team (ERT) can provide expertise in treatment technology, biology, chemistry, hydrology, geology, and engineering including the following:</td>
<td>· Special decontamination equipment for chemical releases; · Basic detection, sampling, and analysis equipment (including air monitoring equipment and equipment for threat assessments and determinations); and · A robotic submarine</td>
<td></td>
</tr>
<tr>
<td>Center</td>
<td>· Advice to the OSC/RPM in hazard evaluation; · Risk assessment; · 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. EPA can provide technical advice pertaining to health risks available for health care providers such as the Agency for Toxic Substances and Disease Registry (ATSDR) and the Center for Disease Control (CDC).</td>
<td></td>
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</tr>
<tr>
<td>(202) 260-3850</td>
<td>NRT Chair (202) 260-3850</td>
<td>On-Scene Coordinators</td>
<td>Travels by commercial aircraft. Expected to deploy within 6 hours and arrive within 12 to 24 hours.</td>
</tr>
<tr>
<td>Direct response efforts and coordinate all other efforts at the scene of a hazardous substance discharge or release.</td>
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<tr>
<td>Environmental Response Team</td>
<td>Provides technical support for assessing, managing and disposing of hazardous waste.</td>
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<tr>
<td>22 dedicated personnel, plus contractor support, located in Edison, NJ and Cincinnati, OH</td>
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<tr>
<td>Travels by commercial aircraft. Advance team expected to deploy within 4 hours. Full team expected to arrive within 24 to 48 hours.</td>
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<tr>
<td>Agency and Information Contacts</td>
<td>Advisory/Technical Assistance</td>
<td>Equipment</td>
<td>Transportation &amp; Response Time</td>
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<tr>
<td>FEMA</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>PT &amp; E Division (770) 220-5480</td>
<td>N/A</td>
<td>N/A</td>
<td>hours.</td>
</tr>
<tr>
<td>NOAA</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Brad Benggio (305) 530-7931</td>
<td>The NOAA Scientific Support Coordination Branch can provide critical scientific support to the OSC during spills of hazardous materials in order to reduce risks to coastal habitats and resources. Scientific Support Coordinators (SSCs) use spill trajectory estimates, chemical hazards analysis, and assessments of the sensitivity or resources to help the OSC make timely operational decisions. SSCs can provide guidance, experience, and resources to develop spill preparedness plans that help identify the course of action that provides the most environmental benefit.</td>
<td>NOAA Hazmat hazardous substance response equipment capabilities include the following: · ESI Maps; and · Release modeling programs</td>
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</table>

NOAA Hazmat hazardous substance response equipment capabilities include the following:

- Providing information and expertise to develop contingency plans;
- Conducting training and technology transfer activities in spill response techniques;
- Maintaining an expansive electronic communications network that supports spill response operations;
- Providing scientific advice to the OSC;
- Coordinating on-scene scientific activities.
- Observing and documenting spill movement;
- Performing spill trajectory analysis;
- Identifying environmentally sensitive areas;
- Identifying appropriate
<table>
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<tr>
<th>Agency and Information Contacts</th>
<th>Advisory/Technical Assistance</th>
<th>Equipment</th>
<th>Transportation &amp; Response Time</th>
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<tr>
<td><strong>NRC</strong></td>
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<tr>
<td>24-Hour NRC Emergency Operations Center (301) 816-5100</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td><strong>State Department</strong></td>
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<tr>
<td>Bob Blumberg (202) 647-4971</td>
<td>The primary assistance that the State Department could provide would be in coordinating and facilitating response measures taken outside of U.S. jurisdiction or involving foreign assets (i.e., clearances for U.S. response personnel, vessel response on high seas, etc.</td>
<td>N/A</td>
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<tr>
<td>David Noble (202) 647-4986</td>
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<tr>
<td><strong>U.S. Coast Guard</strong></td>
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<tr>
<td>National Strike Force - Gulf Strike Team, Mobile, AL (251) 441-6600</td>
<td>Respond to oil and hazardous substance pollution incidents in and around waterways to protect public health and the environment. Area of responsibility includes all CG Districts and Federal Response Regions. Support EPA OSCs for inland area incidents.</td>
<td>Three teams located in Fort Dix, NJ, Mobile, AL, and Novato, CA with 35 to 39 dedicated personnel per team.</td>
<td>Travels by military aircraft or ground transportation. Expected to deploy within 1 to 6 hours and arrive within 12 hours.</td>
</tr>
</tbody>
</table>
| | The USCG National Strike Force (NSF) could provide the following:  
| | · Spill assessment, response operations strategy;  
| | · Response planning and consultation associated with spill response techniques and equipment use;  
| | · Supervision and monitoring of | | |
| | Three teams located in Fort Dix, NJ, Mobile, AL, and Novato, CA with 35 to 39 dedicated personnel per team. | | |
| | The USCG National Strike Force could provide the following:  
| | · Large Pump ready load;  
| | · Temporary storage containers;  
| | · Product transfer equipment;  
| | · Level A and B personnel protective equipment  
| | · Communications gear;  
| | · Hazmat sampling; and  
| | · Monitoring equipment | | |

**Agency and Information Contacts**
- **Advisory/Technical Assistance**: Protection measures and priorities; 
  - Evaluating and recommending cleanup alternatives; 
  - Identifying chemical hazards; 
  - Managing information and coordinating observations; 
  - Expertise regarding environmentally sensitive areas and cultural resources; and 
  - SSCs to address environmental issues.

**Transportation & Response Time**
- Travels by military aircraft or ground transportation. Expected to deploy within 1 to 6 hours and arrive within 12 hours.
<table>
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<tr>
<th>Agency and Information Contacts</th>
<th>Advisory/Technical Assistance</th>
<th>Equipment</th>
<th>Transportation &amp; Response Time</th>
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<td>operations at spill site; · Site safety oversight; and · Limited field hazard categorization capabilities.</td>
<td>Approximately 50 dedicated personnel in pre-designated Coast Guard regional zones at various locations nationwide.</td>
<td>Travels by ground transportation. On-call 24 hours. Response time depends on location of incident site.</td>
</tr>
</tbody>
</table>

**Coast Guard OSCs**

Coordinate all containment, removal, and disposal efforts during hazardous substance releases in the coastal zone or major navigational waterways.

**USDA**

Blake Velde  
(202) 205-0906

USDA’s role may include providing expertise to advise and supplement conventional response organizations on scientific or technical questions related to the USDA’s mission areas.

N/A

**Department of Health and Human Services (HHS)**

Management Support Teams

Manage federal medical teams and assets that are deployed in response to an incident.

6 to 8 dedicated personnel located at Rockville, MD supplemented by 18 to 20 collateral duty Department of Veteran Affairs personnel.

Travels by commercial or military aircraft. Initial teams (2 to 5 members) expected to be ready to deploy within 2 hours and arrive on scene within 12 hours. Full team expected to arrive within 12 to 24 hours.

National Medical Response Teams

Decontaminate casualties resulting from a hazardous materials incident, provide medical care, and deploy with pharmaceutical cache of antidotes and medical equipment.

4 teams at Washington, D.C. (non-deployable); Winston-Salem, NC; Denver, CO; and Los Angeles, CA with 36 collateral duty members per team.

Travels by commercial aircraft or ground transportation. Expected to be ready to deploy within 3 hours and arrive within 12 hours.

Disaster Medical Assistance Teams

Provide emergency medical care during a disaster or other event.

47 teams at various locations nationwide with 34 collateral duty members per team.

Travels by commercial or military aircraft or ground transportation. Expected to deploy within 3 to 4 hours and at the site within 12 to 24 hours.
## 9886.3 Radiological Response Resources/Capabilities

<table>
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<tr>
<th>Agency and Information Contacts</th>
<th>Advisory/Technical Assistance</th>
<th>Equipment</th>
<th>Transportation &amp; Response Time</th>
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</table>
| CDC                             | In the area of radiological response, CDC can provide technological assistance in the following areas:  
· Human health threat assessment  
· Exposure prevention  
· Worker safety  
· Toxicology  
· Epidemiology  
· Public communication; and  
· Provision of treatment protocols | N/A       |                                 |
| CDC 24-Hour CDC Emergency Response Coordination Group (770) 488-7100 |                                |           |                                 |
| DOD/Navy                        | DOD and DOE are responsible for leading the Federal response for accidents or incidents associated with nuclear weapons within their respective custodies.  
Any DOD medical capability would be assessed through the Joint Staff, J-3, Western Hemisphere and the appropriate State Department and/or military channels. The National Disaster Medical System (NDMS) is headed by the Department of Health and Human Services and has primary responsibility for Emergency Support Function (ESF) #8, Health and Medical Services, of the Federal Response Plan (FRP). Similar relationships between departments would be maintained and are found in other parts of the FRP. | DOD and DOE are equipped to respond to incidents within their respective custodies.  
Each Service has a variety of medical capabilities. Specific requirements would be channeled through the Joint Staff, J-3, Western Hemisphere for appropriate staffing and tasking coordination. | DOD and DOE are equipped to respond to incidents within their respective custodies.  
Each Service has a variety of medical capabilities. Specific requirements would be channeled through the Joint Staff, J-3, Western Hemisphere for appropriate staffing and tasking coordination. |
<p>| U.S. Army Radiological Advisory Medical Team | Assists and furnishes radiological health hazard guidance to the on-scene commander or other responsible officials at an incident site and the installation medical authority. | 8 to 10 collateral duty personnel located at Walter Reed Army hospital Washington, D.C. | Travels by military transportation, commercial aircraft, or personal vehicles within 8 hours. |</p>
<table>
<thead>
<tr>
<th>DOE</th>
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<tr>
<td>24-Hour DOE Headquarters Emergency Operations Center (202) 586-8100</td>
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Radiation Emergency Assistance Center/Training Site (REAC/TS) consists of a team of doctors, nurses, radiation biologists, and health physicists that are trained to provide consultative, onsite, or offsite assistance related to medical and health physics problems associated with radiation accidents. The team can provide assistance regarding assessment and treatment of internal and external contamination, conduct radiation dose estimates, diagnose and provide prognosis of radiation-induced injuries, conduct medical and radiological triage.

Federal Radiological Monitoring and Assessment Center (FRMAC) provides a framework for coordinating monitoring and assessment activities when multiple federal agencies respond to a radiological accident or incident. Coordination includes sending an advanced party to locate and establish a central operations facility, assisting in developing and implementing monitoring plans, collecting and managing all monitoring and sampling data, and providing recommendations for protective actions.

Accident Response Group (ARG) provides world-wide emergency response support to accidents or incidents involving U.S. nuclear weapons. Response personnel consist of weapons experts, health physicists, nuclear safety and packaging personnel from the DOE Nuclear Weapons Complex. Primary responsibility is weapons recovery and protection of the public and environment.

Nuclear Emergency Search Team (NEST) provides rapid and customized response capability for world-wide search operations for nuclear materials, including weapons, improvised nuclear devices and radiological dispersal devices. NEST’s mission is to locate, identify, access, diagnose, and disable such devices. NEST also

REAC/TS has state-of-the-art onsite facilities that include whole body counters for measuring internal contamination, pathology, and health physics laboratories, and laboratories for chemical, radiological, and cytogenetic analysis. Deployable equipment consists of alpha, beta, and gamma survey meters, wound monitors, chest monitors, a portal monitor, and miscellaneous medical supplies including chelation therapy drugs.

FRMAC equipment consists primarily of NEST and ARG equipment identified below.

ARG equipment consists of portable low and high-energy photon detectors, other radiological survey instruments, personnel protective equipment, decontamination equipment, air transportable mobile laboratories for monitoring, sampling, and analysis activities, transportainers, communications, and other logistical equipment.

NEST equipment consists of handheld gamma and neutron detection instruments, mobile search vans, communications, equipment, databases, and geographic information systems.

Initial prediction information can be provided in 30 minutes to 2 hours.

REAC/TS can deploy within 6 hours of notification.
provides assessment of radiation and damage probabilities in the event of the detonation of a device.

ARG can deploy within 4 to 6 hours of notification.

NEST can deploy within 6 hours after notification.

| EPA Emergency Operations Center (202) 260-3850 | EPA’s Radiological Emergency Response Team (RERT) can provide response and support for incidents or sites containing radiological hazards. Expertise is available in the following areas:
- Radiation monitoring
- Radionuclide analysis
- Radiation health physics; and
- Risk Assessment

EPA can provide technical advice pertaining to health risks available for health care providers such as the Agency for Toxic Substances and Disease Registry (ATSDR) and the Center for Disease Control (CDC).

EPA has two radiological laboratories, which can quickly characterize radiation sources. In addition, EPA operates an Environment Ambient Monitoring System (ERAMS). ERAMS, which has a sampling station located in the Panama Canal Operating Area, can measure radioactivity and other contaminants in various environmental media. In a radiological emergency, this sampling station may be able to provide information about how far contamination has spread. |

<table>
<thead>
<tr>
<th>EPA</th>
<th>ARG can deploy within 4 to 6 hours of notification. NEST can deploy within 6 hours after notification.</th>
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</table>

<table>
<thead>
<tr>
<th>FEMA</th>
<th>N/A</th>
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</table>

| NOAA | NOAA does not normally respond to radiological releases. However, NOAA has expertise regarding environmentally sensitive areas and cultural resources. NOAA radiological response equipment capabilities include the following:
- ESI Maps; and
- Release modeling programs for combined hazmat chemicals and radiological elements. |

<table>
<thead>
<tr>
<th>NRC</th>
<th>N/A</th>
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</table>
### State Department

<table>
<thead>
<tr>
<th>Name</th>
<th>Contact Information</th>
<th>Description</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bob Blumburg</td>
<td>(202) 647-4971</td>
<td>The primary assistance that the State Department could provide would be in coordinating and facilitating response measures taken outside of U.S. jurisdiction or involving foreign assets (i.e., clearances for U.S. response personnel, vessel response on high seas, etc.)</td>
<td></td>
</tr>
<tr>
<td>David Noble</td>
<td>(202) 647-4986</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### USDA

<table>
<thead>
<tr>
<th>Name</th>
<th>Contact Information</th>
<th>Description</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blake Velde</td>
<td>(202) 205-0906</td>
<td>USDA’s role may include providing expertise to advise and supplement conventional response organizations on scientific or technical questions related to the USDA’s mission areas, including the Radiological Emergency Response Program.</td>
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</table>

### Department of Veterans Affairs (VA)

<table>
<thead>
<tr>
<th>Name</th>
<th>Contact Information</th>
<th>Description</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Emergency Radiological Response Team</td>
<td></td>
<td>Provides technical advice, radiological monitoring, decontamination expertise, and medical care as a supplement to an institutional health care provider.</td>
<td>21 to 23 collateral duty personnel are located at various sites nationwide.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Travels by commercial aircraft. Expected to deploy within 6 hours and arrive within 12 to 24 hours.</td>
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</table>
Northeast and Eastern Central Florida Area Contingency Plan

Annex 9900: Lessons Learned
9900 Lessons Learned

9910 Deepwater Horizon Lessons Learned

Deepwater Horizon lessons learned were extracted from the Incident Specific Preparedness review (ISPR) and the USCG DWH Strategic lessons Learned After Action Report (the CG-535 Report) and included in the ACP. This section references the location within the ACP for each lesson learned.

1330 Area Committee’s Role and Members

The primary role of the Area Committee is to act as a planning body. Area Committees are made up of experienced environmental/response representatives from Federal, State and local government agencies each with definitive responsibilities for the area's environmental integrity. Active participation by Governors and county representatives in the Area Committee planning process is encouraged. Each member is empowered by their agency to make decisions on behalf of the agency and to commit the agency to carrying out roles and responsibilities as described in this plan. The pre-designated Federal On-scene Coordinator for the area will serve as chairman of the Committee. He/she will designate the vice-chairman, select the Committee members, and provide general direction and guidance for the Committee. The OSC should solicit the advice of the Regional Response Team (RRT) to determine appropriate representatives from federal and state agencies. The Area Committee is encouraged to solicit advice, guidance, or expertise from all appropriate sources and establish subcommittees as necessary to accomplish the preparedness and planning tasks. Subcommittee participants may include facility owners/operators, shipping company representatives, cleanup contractors, emergency response officials, marine pilot associations, academia, environmental groups, consultants, response organizations and concerned citizens. The OSC will appoint the subcommittee members. The OSC directs the Area Committee's development and maintenance of the Area Contingency Plan. The Area Committee will meet annually to review the ACP. Formal minutes of Area Committee meetings will be posted on the homeport web-site.

1650 Insitu Burn Approval/Monitoring/Decision Protocol

The Region IV Regional Response Team policy statement dated April 1995 explains in detail the factors to be evaluated when the RRT is considering the use of in-situ burning. Appendix VI of the Region IV in-situ Burn Policy provides a decision tree intended for the OSC and SSC to use in evaluating an in situ burn. Information on in-situ burning equipment can be found at:

The volume of oil that can be removed by in-situ burning is the primary benefit to this countermeasure. In August of 1993, a joint US/Canada in-situ burning experiment off the coast of Newfoundland burned 12,760 gallons of Alberta Crude in 90 minutes with 99% efficiency. Considerable research has been presented on the theory and practical application of in situ burning. Through this research, the following parameters have been developed:

1) In situ burning of uncontained oil is usually not effective. The oil slick must be a minimum of 0.11 inches (2 mm) thick for effective ignition. While uncontained oil can be ignited, the burn efficiency will be significantly lower than that of contained oil.

2) If the slick thickness is greater than 0.11 inches, almost any type of oil can be ignited and burned in-situ. Under extreme weather conditions, heavy weathering of the oil and significant emulsification of the oil are factors that make ignition and burning more difficult. High viscosity oils will burn well once ignited.
3) In situ burning is very time sensitive. Emulsification of the oil makes it more difficult to ignite. Although emulsions up to 70% water will ignite under the correct conditions, burn efficiencies will be reduced.

4) The normal upper environmental limits for ignition are winds of 20 knots or less and seas of 4 feet or less. Fresh or un-emulsified oil can usually be ignited at well above these limits.

5) In situ burning reduces the slick thickness about 0.1 inches (2 mm) per minute or about 0.07 gallon per minute per square foot of oil.

PRE-AUTHORIZATION OF IN-SITU BURNING

The term "in-situ" applies to operations conducted for removal of oil by burning. These operations may apply during daylight or nighttime hours. In-situ burning operations will be conducted within the jurisdiction of the RRT IV region in accordance with this agreement and, in addition, where applicable, in accordance with protocols established in Letters of Agreement (LOA) between the USCG, EPA, DOI, DOC, and the affected state(s). The authority to authorize the use of in-situ burning provided under this Agreement to the USCG OSC may not be delegated. The following three zones have been established to specify pre-authorized locations and conditions under which burning may occur:

"A" ZONES -- PRE-AUTHORIZATION FOR OPEN-WATER

The "A" zone is defined as any area in Region IV, falling exclusively under federal jurisdiction; and not classified as a "B", or "R" ZONE; which is at least 3 miles seaward from any state coastline; and seaward of any state waters, or as designated by separate LOAs with each individual state, the USCG, EPA, DOI, and DOC. In the event that state jurisdiction extends beyond 3 miles from a state shoreline, pre-approval for the "A" zone applies only to those areas outside state jurisdiction unless a LOA is in place and specifically pre-authorizes in-situ burning within those state waters.

Within "A" zones, the USCG, EPA, DOC, DOI, and the state(s) agree that the decision to use in-situ burning rests solely with the pre-designated USCG OSC, and that no further approval, concurrence or consultation on the part of the USCG or the USCG OSC with EPA, DOC, DOI, or the state(s) is required. The USCG agrees with EPA, DOC, DOI, and the state(s) that the USCG will immediately notify said agencies and affected state(s) of a decision to conduct burning within the "A" zone, via RRT IV representatives.

"B" ZONES -- WATERS REQUIRING CASE-BY-CASE APPROVAL

A "B" zone is defined as any area in the RRT IV region falling under state or special management jurisdiction which is not classified as an "A", or "R" zone.

"B" zones are all areas falling: 1) anywhere within state waters, 2) waters less than 30 feet in depth that contain living reefs, 3) waters designated as a marine reserve, National Marine Sanctuary, National or State Wildlife Refuge, unit of the National Park Service, proposed or designated Critical Habitats, and 4) mangrove areas, or coastal wetlands. Coastal wetlands include submerged algal beds and submerged sea grass beds.

Where a LOA is in effect between the USCG, EPA, DOI, DOC, and the affected state(s); the policy for pre-authorization established under the provisions of said LOA shall preempt the policy herein established for zones otherwise designated as falling in the "B" zone. In the event that a Letter of Agreement is not in effect for areas falling within the "B" zone, the following protocols shall apply:

1) If the OSC feels that in-situ burning should be used in areas falling in a "B" zone, a request for authorization must be submitted to the RRT and the affected state(s), along with the required information listed in the in-situ burning Application/Checklist form, found in Appendix VI of the RRT IV In-situ Burn
Policy. 2) The OSC's decision to use in-situ burning shall be made after consulting with RRT IV representatives of state and federal trustee agencies to ensure that the best available information pertaining to the presence or absence of natural resources at the burn site is obtained. 3) The OSC is only granted authority to conduct in-situ burning in the "B" zone when consent has been given by EPA and the affected state(s) and after consultation with, DOI and DOC. 4) The RRT IV will respond to the OSC's request for authorization to burn in zone "B" within four hours from the time of notification. If the RRT IV has not responded to a request for authorization to burn in zone "B" within four hours, then the OSC may proceed with in-situ burn operations.

The USCG agrees with EPA, DOC, DOI, and the state(s) that the USCG will immediately notify said agencies and affected state(s) of a decision to initiate an approved burn within a "B" zone via RRT IV representatives.

"R" ZONES -- EXCLUSION ZONES

An "R" zone is defined as any area in the RRT IV region falling under state or special management jurisdiction which is not classified as an "A" or "B" zone.

The "R" zone is that area designated by the RRT IV as an exclusion zone. No in-situ burning operations will be conducted in the "R" zone unless 1) in-situ burning is necessary to prevent or mitigate a risk to human health and safety; and/or 2) an emergency modification of this agreement is made on an incident-specific basis.

RRT IV currently has not designated any areas as "R" zones, but retains the right to include areas for exclusion at a future point in time if it feels this is warranted.

PROTOCOLS

The following requirements apply to the use of all burning operations under the provisions of this policy:

1. Health and Safety Concerns -- Operators: Assuring workers' health and safety is the responsibility of employers and the USCG OSC who must comply with all Occupational Health and Safety Administration (OSHA) regulations. Prior to any in-situ burn operations, a site safety plan must be submitted and approved by the OSC. Public: The burning should be stopped if it is determined that it becomes an unacceptable health hazard due to operational or smoke exposure concerns to responders or the general public. If at any time, exposure limits are expected to exceed national federal air quality standards in nearby populated areas, as a result of in-situ burning operations, and then in-situ burning operations will immediately cease. The Level of Concern (LOC) for particulates for the general public in the RRT IV region is 150 ug/m3 (PM-10) averaged over 1 hour.

2. Monitors representing the USCG, EPA, federal trustee agencies, the affected state(s), OSHA, and the responsible party will have the opportunity to observe in-situ burning operations. Monitoring to establish Continue/Discontinue" data for input to the OSC will be conducted in accordance with protocols established by the Region IV Regional Response Team as outlined in the monitoring program contained in appendix VI of the Region IV In-situ Burn Policy. Unless smoke plumes are predicted to cross over populated or environmentally sensitive areas, an inability to conduct monitoring operations will not be automatic grounds for discontinuing or prohibiting in-situ burn operations. All burns must incorporate visual monitoring at the burn site to record the disposition of burn residues and to monitor the burn site for potential impact to any natural resource in the area. Samples of the residue will be collected if feasible.

3. Prior to any in-situ burning operations, the OSC will apply the decision tree contained in appendix VI of the Region IV In-situ Burn Policy.

4. The application/checklist form in appendix VI of the Region IV In-situ Burn Policy shall be completed for all burns and provided to RRT IV members in a timely manner for documentation and informational.
5. The USCG will make every reasonable effort to continuously evaluate the decision to burn, and allow RRT agencies and affected state(s) the opportunity to comment. Formal request to discontinue a burn should be presented, in writing to the OSC for consideration.

6. Burning will be conducted in a way that allows for effective control of the burn, to the maximum extent feasible, including the ability to rapidly stop the burn if necessary. Contained and controlled burning is recognized as the preferred method of burning using fire-resistant boom. All practical efforts will be made to control and contain the burn and prevent accidental ignition of the source. Generally it is not recommended that the source or adjacent uncontained slicks be allowed to ignite during in-situ burning operations. Certain circumstances, however, may warrant consideration of carefully planned source ignition.

7. Mechanical recovery equipment shall be mobilized on-scene, when feasible, for backup and complimentary response capability. Provisions must be made for collection of burn residue following the burn(s).

8. In-situ burning will be conducted in accordance with any consultations approved by the USFWS and the NMFS, under Section 7 of the Endangered Species Act. Prior to beginning an in-situ burn, an on-site survey will be conducted to determine if any threatened or endangered species are present in the burn area or otherwise at risk from any burn operations, fire, or smoke. Appropriate natural resource specialists, knowledgeable with any special resource concern in the area and representing the resource trustee, will be consulted prior to conducting any in-situ burn. Measures will be taken to prevent risk of injury to any wildlife, especially endangered or threatened species.

Examples of potential protection measures may include: moving the location of the burn to an area where listed species are not present; temporary employment of hazing techniques, if effective; and physical removal of individuals of listed species only under the authority of the trustee agency.

9. In-situ burning is advised only when meteorological and sea conditions are operationally favorable for a successful burn. The OSC will give due consideration to the direction of the wind, and the possibility of the wind blowing precipitate over population centers or sensitive resources onshore. A safety margin of 45 degrees of arc on either side of predicted wind vectors should be considered for shifts in wind direction.

10. Any use of in-situ burning requires that the OSC, or a designated member of the OSC’s staff provide a post-incident report, within 45 days of in-situ burning operations. Recommendations for changes or modification to this policy should be presented in the report, if appropriate. This report will be presented at a Region IV RRT meeting, if requested by the RRT.

FIRE BOOM

Manufacturer of fire boom is: Minnesota Mining & Manufacturing, 3M Center Building 225-4N-07, ST Paul, MN 55144-1000. 3M does not maintain inventory in stock. As of September 1993, the only large stock available is 6000 feet held by the Cook Inlet Spill Response Cooperative. According to the coop’s general manager, Bill Stilling, they will allow the Coast Guard to take up to 2500 feet of fire boom. If not used in the water, boom is rental only. If used in the water, the Coast Guard buys it. A second stockpile has been identified: Amoco Production Division holds 1500 feet of 18 inch 3M fire boom at Houston, TX. Negotiations are underway to send 750 feet to South Hampton, United Kingdom and 750 feet to Clean Caribbean Cooperative in FT Lauderdale, FL.

Another possible source of fire boom is American Marine, in Cape Canaveral, FL. This company has just arranged with 3M in 1994 to start building fire boom. Quantities that will be stockpiled and available for immediate use are unknown.

Additionally the following sources are also available:
Spill Prevention Response Incorporated (SPRI) has 6000 feet of fire boom inventory at Cook Inlet. Contact SPRI at (907) 776-5129.

Marine Spill Response Corporation (MSRC) has 4000 feet in inventory at various locations. MSRC can be contacted at (703) 326-5611.

Three sets of fire boom are required for maximum effectiveness. Each set will consist of 500 feet (ten 50 foot sections) of boom. The largest boom available has a float diameter of 18 inches, a skirt length of 24 inches and a linear weight of 15.3 pounds per inch. The maximum net weight of each set would be 7650 pounds. If available, the largest size boom is desired.

For emergency procurement of fire boom, contact the Cook Inlet Spill Response Cooperative. The fire boom is already palletized and they will deliver by truck to Kenai or Keniska Airport, the nearest airports capable of handling a C-130 aircraft. Request aircraft support through the appropriate channels.

Special considerations: Commanding Officer of the Pacific Strike Team is the Coast Guard's representative to the National Response Team for in situ burning. Request assistance through the NSF Coordination Center (252) 331-6000. Also contact Dave Adams of the District Readiness Assistance Team (DRAT) at (305) 536-6502.

The following checklists are also found within this section of the ACP:
Oil Spill Response Application/Checklist for In-situ Burning
Region IV Inland ISB Evaluation and Response Checklist

**4320 Volunteer Coordination and Documentation**

Due to the logistical requirements of coordinating volunteers, the response organization must be large enough to support volunteer participation. That is why the use of volunteers may not be appropriate during smaller incident responses. The assignments provided should be low risk. In certain circumstances, volunteers may be used for higher risk activities. A common use of volunteers is for wildlife cleaning or removal of debris before the oil impacts the beach or shoreline. These activities, however, require specialized training and in some cases licensing.

The Sector Liaison Officer (LNO) will generally be the first to receive external reports of volunteer interest due to the outreach responsibilities of that position. If volunteer interest exists, the LNO should recommend the establishment of a Volunteer Coordinator (VC). Volunteer Coordinators play a critical role in the Unified Command’s (UC) outreach to the public. The VC will normally become part of the Planning Section. The VC will work with the manager or supervisor of the volunteer organizations and the Joint Information Center when a UC is established. Once accepted by the UC, the volunteer organization will be assigned to a specific branch or unit based on incident needs. Representatives from the volunteer organizations will coordinate with the appropriate Branch within the Operations Section and are responsible for coordinating their member activities.

Some the VC functions may include but are not limited to the following:

- Provide a point of contact for all volunteers as well as for all units/agencies needing volunteers.
- Establish and manage a Volunteer Operations Center (VOC) to provide recruitment, registration, orientation, training, assignments, and arrangements for volunteer supervisors.
- Establish a communication system, including toll-free phone numbers, fax lines and fax machines, phones, a website, and a link to the Command Center. Recruitment of an Amateur Radio Operator should be considered for remote locations.
• Create a credentialing system allowing designated volunteers access to the scene. This may come in the form of wrist bands, letter from Federal On Scene Coordinator or a picture ID. Some responsible parties may have developed their own credentialing system. The system to be used will be developed on a case by case basis.

• Coordinate with the Public Information Officer (PIO) or Joint Information Center (JIC) to provide notification to the media regarding types of volunteer jobs available and procedures for volunteering, including a toll free phone number or website where more information is available and/or where volunteers can register. It is essential to coordinate dissemination of the toll-free telephone numbers to the public through the UC’s JIC and local PIOs to reduce confusion and ensure consistency of information. When the VOC is activated, the UC’s JIC and local PIOs may want to issue a press release with information regarding volunteers.

It is the volunteer supervisor’s job to:

• Provide proper briefings to the VOC.
• Oversee operations as assigned.
• Provide and ensure the proper use of PPE
• Ensure health and safety of volunteers.
• Ensure that logistics requirements are met
• Maintain all required documentation
• Maintain volunteer credentialing
• Track volunteers

4323 Safe Use of Volunteers

Appropriate training shall be provided to volunteers prior to participation in spill response operations based on assigned tasks. The National Oil and Hazardous Pollution Contingency Plan (NCP) 40 CFR 300 discourages volunteer participation in physical removal activities and limits them to non-hazardous tasks due to the extensive medical surveillance, training and equipment required to participate in physical removal activities. Sector Jacksonville’s policy is that volunteers shall not have direct contact with oil or other hazardous substances. However, volunteers may be used to support the following pre-designated activities with UC approval:

Habitat Surveyor: Sector Jacksonville may deploy these volunteers to assist in the habitat survey of pre and post spill shoreline and riverbank wildlife. Interested volunteers must be able to identify oil on the ground, structures or on plants vs. a non-oiled environment, have a valid driver’s license, be familiar with the local area without the use of street signs, and must attend HAZWOPER training.

Pre-impact Shoreline and Riverbank Cleanup: Sector Jacksonville may deploy these volunteers to assist with the ongoing pre-event maintenance and clean-up of coastal areas in an effort to minimize the potential amount of contaminated debris. Interested volunteers must be physically capable of walking, stooping, lifting, and carrying debris repositories. Volunteers must also be very familiar with the local area without the use of street signs, have a valid driver’s license and must attend four hour USCG training.

Beach cleanup efforts must be conducted in compliance with the Pre-Oil Arrival Beach Cleanup Guidelines. A Checklist is posted at www.volunteerflorida.org.

Delivery / Runners: Sector Jacksonville may deploy these volunteers to carry supplies, transport personnel, and other associated duties as assigned, to and from oil-impacted areas or other locations. Interested volunteers must be in good physical condition, have a valid driver’s license, be very familiar with the area without the use of street signs, and must attend four hour USCG training.
Coast Watcher: Volunteers are community members who are very familiar with local beaches and can report any changes that may be attributed to the oil spill incident. Interested volunteers must be familiar with the local area and attend an on-site safety training.

Volunteer Coordination: Sector Jacksonville may deploy these volunteers to set up and manage a Volunteer Reception Center (VRC) or Volunteer Congregation Site. Interested volunteers need experience in dealing with convergent, unaffiliated volunteers. Volunteers must also be in good physical condition, have a valid driver’s license, be very familiar with the local area without the use of street signs, and must attend a four hour USCG training as well as three hour VRC training.

3200 Vessel Decontamination Plan – Pending