Marine Firefighting and Salvage Plan

Annex 9
July 2021

Record of Changes

Change Number	Change Description	Section Number	Change Date	Name
1	Renamed Appendix 14 to Annex 9 and removed Reference to Vol 2	All	30 July 2021	Todd Peterson, CGD 8
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1000 Introduction

This plan outlines the USCG responsibilities and provides response guidelines for a marine fire. The Captain of the Port's (COTP) primary concern in responding to vessel or facility fires is to ensure safety of life. Secondary concerns include maintaining vessel traffic, preserving property, and protection of the environment. To accomplish this, the COTP and the Marine Fire-fighting sub-committee have created this fire-fighting plan for responding to vessel and waterfront casualties. The guiding policy for this plan is COMDTINST M16000.11, Marine Safety Manual, Volume VI, chapter eight.

This plan was jointly developed by the Marine Firefighting sub-committee. The sub-committee was made up of people from the following organizations:

- Port Neches Fire Department
- Louisiana Office of Emergency Preparedness (Calcasieu Parish)
- Texas General Land Office (Nederland office)
- Southwest Louisiana Mutual Aid Association
- Sabine Neches Chief's Association
- Ward 6 Fire Department
- Port Arthur Fire Department
- Orange Fire Department
- Beaumont Fire Department
- Lake Charles Fire Department
- Calcasieu Parish Sheriff's Office (Marine Division)
- Moran Towing (Nederland office)
- Motiva Enterprises
- Sunoco Logistics
- U.S. Coast Guard (Station Sabine), and
- U.S. Coast Guard (Marine Safety Unit Port Arthur)

1100 Policy and Responsibility

The senior fire service officer with jurisdiction over the location in which the shipboard fire occurs will serve as the Incident Commander (IC). For other fires, the master of the affected vessel or another designated representative of the owner/operator will serve as the IC. The USCG shall not assume overall control of firefighting efforts when appropriate qualified fire service officers are present and able to assume command.

The Southeast Texas/Southwest Louisiana ports and waterways facilities cover many miles of waterways, transiting numerous local, county, parish, and state jurisdictional boundaries. A unified command (UC) structure for incidents in these areas shall be used when practical. The COTP should be consulted relative to action that may affect the navigational channel or create a pollution hazard.

1200 Captain of the Port Responsibility

The USCG renders assistance as available, based on the level of training and the adequacy of equipment. The COTP intends to maintain this traditional "assistance as available" posture without conveying the impression that the USCG is prepared to relieve local fire departments of their responsibilities or compromise their authorities. Paramount in preparing for vessel or waterfront fires is the need to integrate USCG planning and training efforts with those of other response agencies, particularly local fire departments and port authorities.

The COTP shall provide appropriate assistance to local municipal fire departments, vessel and facility owners and operators, and other interested parties. The COTP will be prepared to assume the role of IC upon conclusion of firefighting operations if it is appropriate to do so. All USCG firefighting forces and equipment shall remain under the control of their normal chain of command. Orders for the coordination of USCG personnel shall be passed through the USCG COTP or designated representative by the local qualified fire officer. The USCG COTP or designated representative shall be responsible for evaluating the orders of such persons and executing only those orders that will not create unwarranted risk to USCG personnel or equipment.

1300 Vessel Master Responsibility

The master of a vessel is responsible for the safety of the crew and vessel and should initiate firefighting response actions in accordance with the vessel's fire plan. The presence of local fire fighters does not relieve the master of command 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 fire fighters in the performance of firefighting activities on board the vessel, unless the intended action clearly endangers the safety of the vessel or crew.

1400 Area of Responsibility

The COTP's area of responsibility for the Southeast Texas and Southwest Louisiana Zone is defined by 33 CFR 3.40-20. Basically, the area of responsibility is from High Island, Texas, eastward to the Mermentau River in Louisiana.

Responsibility extends to:

- Ships and vessels
- Their cargo and crew
- Structures in or immediately adjacent to navigable U.S. waters
- Resources within such waters

2000 Task Organization

In the event of a major shipboard or facility fire, the COTP will request the designation of an IC. The senior fire service person on-scene serves as the IC for the purpose of responding to the fire and the COTP is responsible for the safety of the waterway and adjacent area.

2100 Multi Agency Response

In a multi-agency response, a Unified ICS structure should be established. This ICS structure should consist of the individuals designated by their respective agencies. The members of the Unified ICS must jointly determine objectives, strategy, and priorities. The determination of which agencies or departments the IC/UC uses may be done on the basis of greatest jurisdictional involvement, number of resources involved, existing statutory authority, or by mutual knowledge of the individual's qualifications.

A Unified IC structure is called for under the following conditions:

More than one department or agency shares management responsibility due to the nature of the incident or the kinds of resources required or, the incident involves more than one jurisdiction.

The USCG cannot delegate its statutory authorities and will not delegate mission responsibilities to state or local agencies. However, USCG personnel should be prepared to fully integrate into a Unified ICS response structure and provide assistance as necessary.

2200 Multi-Agency Coordination

Coordination between outside agencies is most essential and must be assured by maintaining a continuous liaison between representatives. The best way to accomplish this is for the COTP to meet with all of the UC representatives at the command post to discuss how the situation will be handled. While each case will present a different set of circumstances, liaison with representatives from some or all of the following groups may be appropriate:

- Fire Department(s)
- Owner's Representative
- U. S. Coast Guard
- Appropriate Port Authority
- Pilots Association
- Appropriate Facility Managers
- Master of Vessel
- Cargo Representative
- Legal Counsel
- Naval Architect
- Chief Engineer
- Marine Surveyor
- Chief Mate
- Industrial Hygienist/Toxicologist
- Ship's Agent
- Stevedores
- Appropriate Municipal and/or County and State Officials

2300 Federal Response

USCG Response resources:

- National Strike Force
- Marine Safety Center
- Eighth District Response Advisory Team
- Eighth District Legal
- Auxiliary

Other Federal Agencies:

- Environmental Protection Agency
- Scientific Support Coordinator provided by NOAA
- USN Supervisor Of Salvage (SUPSALV)
- Navy or Army Corps of Engineers vessels operating in the vicinity

Other Resources: Any commercial ship becomes a valuable resource during an offshore fire to rescue the burning vessel's crew should the fire get out of control. Vessels in the area should be notified of a situation via an Urgent Marine Information Broadcast. Tug companies in the vicinity should be contacted and may assist in fighting the fire, moving a dead ship, or transporting personnel and equipment.

2400 State Response

For Texas, contact the Division of Emergency Management, Texas Department of Public Safety for assistance. For Louisiana, contact the Louisiana State Police for assistance.

2500 Local Response

Most local fire departments have limited response capabilities for shipboard fires. The only dedicated fireboat in the COTP zone is located in the Port of Lake Charles. Some local fire departments have small watercraft that can be used for search and rescue and spill response. Offshore ship fires are a rescue priority. Land based fire departments will have involvement at their chief's discretion as the situation and location dictates.

Local emergency management officials provide response to many different emergencies and serve as a centralized notification point for resources within their local areas.

Law enforcement agencies can assist on-scene to:

- Control crowd
- Limit access to incident area
- Provide security for staging areas and/or
- Provide police escort for vehicles carrying fire-fighting personnel and resources

2600 COTP Role

All USCG firefighting forces and equipment within a COTP's Area of Responsibility shall be under the control of the COTP. The COTP is responsible for the development of the marine firefighting annex with input from local response organizations. The COTP shall act as the liaison between the USCG and other response organizations and the media. Orders from the IC for USCG responders shall be passed through and evaluated by the COTP. Only those orders that will not create unwarranted risk for USCG personnel and equipment shall be executed. The COTP shall not assume overall control of firefighting efforts when appropriate qualified fire officers are present and able to take control.

The COTP should:

- Assume the role of IC if the firefighting response is inadequate or nonexistent.
- Be prepared to assume the role of IC following conclusion of firefighting operations if the incident involves pollution or is classified as a marine casualty.
- Coordinate the use of other USCG resources such as small boats, helicopters, etc. in coordination with request of the IC/UC.
- Establish a Marine Firefighting Coordination Team to assist the IC in developing response objectives and integrating federal resources into the response.
- Initiate a Broadcast Notice to Mariners (BNTM) to inform other vessels of the incident.
- Make an assessment of nearby vessels and docks to determine if they might be impacted and notify parties.
- Be prepared to establish a safety zone around the incident.
- Be prepared to issue COTP orders to direct the movement or deny entry of vessels.

For the Command Post:

- The incident command post will be established by the IC.
- The USCG Marine Firefighting Team Coordinator is stationed at the incident command post and maintains communications with involved USCG resources, fire departments, vessel master, facility operators, owners' representatives, salvage or cleanup companies, port officials, and other key personnel on-scene.
- A command post should be established outside of a hazard or decontamination zone.

Considerations in choosing a command post site:

- Command post location not endangered
- Proximity to fire
- Accessibility

2700 Incident Commander Role

The IC will direct the firefighting operations of all responding agencies. Safety of responding emergency personnel shall take priority. The operational response will be based on the following tactical priorities:

- Rescue: The saving of lives and removal of victims to a safe area is paramount and comes before any other consideration.
- Exposure: The protection from exposure is necessary to prevent damage to nearby structures, equipment, and materials and to prevent the spread of fire to uninvolved areas (including fuel loads) on or off the vessel. Exposures may be shipboard, shore side, or on a nearby vessel.
- Confinement: Confine the fire to the compartment or area of origin.
- Extinguishment: Extinguishment includes those operations that are required to attack and extinguish the main body of fire.
- Overhaul: Overhaul includes those operations required to complete the extinguishment of remaining fire, prevent re-flash, and to place the compartment and ship in a safe condition.
- Salvage: Salvage includes those operations required to protect compartments and contents from preventable damage due to water, smoke, heat, or other elements.
- Ventilation: Ventilation includes those operations required to displace a heated and contaminated atmosphere within an involved compartment with normal air from the outside atmosphere.

2800 Responsible Party Role

The responsible party (RP), or ship's master or designee, will maintain control over the vessel, crew, and passengers. The RP will assign a representative to the incident command post. His/her designee should be thoroughly familiar with the ship's firefighting systems and understand ICS.

- The command post will be established upon arrival of the local fire department with command and control for all firefighting functions falling within its guidelines. The ship's firefighting crews will provide strategic assistance to the command post through the RP's representative.
- The RP's first responsibility will be the evacuation of all nonessential personnel and to ensure accountability is taken of the passengers and crew.
- The ship's firefighting crew will make every effort to contain and extinguish the fire. Once the situation has progressed beyond their capabilities, every effort will then be made to contain the fire and await assistance from the fire department having jurisdiction.
- The RP shall deliver the vessel's Fire Control Plan and manifest to the first arriving fire-fighting units.

2900 Vessel Master Role

The master of the vessel will:

- Implement the initial response based on the vessel's fire control plan.
- Ensure proper communications, both internal and external and that proper notifications are made to the appropriate fire department or contractor and the USCG. If necessary, notify the facility to which the vessel is docked, the port authority, and any nearby vessels.
- Control the operation and use of all shipboard firefighting systems.
- Coordinate the efforts of shipboard fire teams in responding to the fire.
- Conduct a muster of the crew and provide a report to the IC/UC.
- Utilize his/her resources to control the fire until such time as he/she is relieved of firefighting activities by the designated IC.
- Decide if it is necessary to abandon ship. If the crew is ordered to abandon ship, the master will ensure that the proper procedures are carried out.
- Provide the vessel fire control plan and international shore connection to IC/UC.
- Provide a list of crewmembers, the condition of the vessel including status of the fuel and ballast tanks and any other flooding and stability issues, the type and condition of cargoes on board, and identification of any special equipment hazards, explosions, or damage.

3000 Vessel Specific Response Operations

Initial response operations will be the responsibility of the operator of the vessel or facility. Operators of vessels must use their own fire control plans to respond to shipboard fires and take any additional steps necessary to limit the spread of fire from the vessel.

Local firefighting organizations (municipal, volunteer, industrial, and contractor) must be prepared to respond within the limits of their training and capabilities. If fire-fighting resources are not trained or capable of handling a shipboard fire, they should take appropriate measures to prevent the fire from spreading.

In addition to the local firefighting resources, the hiring of a professional marine firefighting organization should be considered. These organizations can provide a variety of assistance ranging from technical expertise to trained personnel and specialized equipment for responding to shipboard fires. A contact list for commercial firefighting resources is provided as part of section 7000.

The USCG will provide assistance as appropriate. This may include establishing safety zones, rerouting or restricting vessel traffic, assistance with search and rescue or medical evacuation, deployment of the marine firefighting coordination team, or pollution response operations. Other affected organizations, particularly pollution response or salvage organizations, will respond as directed by the IC under a UC system.

3100 Priorities

- Force (responder) Protection
- Protection of health and human safety
- Protection of the environment
- Protection of property
- Reconstitution

3200 Firefighting Response Considerations

- Establishment of a UC system.
- A complete scene size-up to determine what is burning (class of fire and materials involved).
- A review of the vessel's fire control plan with the chief mate, chief engineer, or crew representative.
- Determining whether the vessel firefighting systems are operational and locating the international shore connection.
- Establishment of appropriate staging areas for arriving equipment.
- A language barrier may exist. The vessel's agent, a vessel's officer, or other interpreter may be required.
- The stability of the vessel may be affected by the additional equipment and the use of water or foam in combating the fire.

3300 Vessel Specific Response Operations

The designated IC (normally the senior fire official on-scene) will direct employment of responding resources. Firefighting resources will be employed based on:

- Location and extent of fire,
- Class and extent of cargo involved,
- Possibility of explosion,
- Possibility of sinking or capsizing,
- Hazard to crew or other resources present at location,
- Weather forecast,
- Maneuverability of vessel,
- Effects on bridges which must be transited, and
- Alternatives if the vessel is not allowed entry or movement.

3400 Vessel Entry or Movement

The authority to deny vessel entry or movement rests solely with the COTP. The guiding policy for the decision is: 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. Considerations for denying entry or movement:

- There is danger of fire spreading to other port facilities or vessels.
- The vessel is likely to sink or capsize within the channel, becoming an obstruction to navigation.
- The vessel may be abandoned.
- Unfavorable weather conditions preclude safe vessel movement or would hamper firefighting; i.e., high winds, fog, strong currents, etc.
- There is risk of a serious pollution incident.

Before entry or movement is considered, the vessel should be examined (with other involved agencies, if possible) in order to determine its condition. Permission for entry or movement may be granted when all appropriate parties, if possible, including pilots and port authority officials have been consulted. The COTP will then direct the best course of action for that particular incident. Special considerations of a request for entry into the port by a burning vessel under declaration of "force majeure" should be evaluated under the previously listed criteria. Once the decision to permit entry or movement of the vessel has been made, consider:

- Issuing a BNTM.
- Ordering the movement of other vessels or cargo stored in the area to preclude their involvement.
- Positioning the vessel to facilitate firefighting.
- The need for USCG escort of vessel.
- Tug assistance as required.

3500 Mooring, Anchorage, Grounding and Scuttling

The COTP should coordinate with fire departments, pilots, port officials, and involved agencies to pre-select a mooring, anchoring, or grounding site for fighting the fire. Considerations for these types of movements are:

- The flammability of wharf structures, facilities, other vessels, and public risk.
- Availability of adequate water supplies.
- Accessibility for response boats and vehicles.
- The possibility of the vessel sinking or becoming abandoned.
- Exposure of or damage to underwater pipelines and overhead utilities.
- The fire's effect on normal channel traffic.
- Potential marine environmental damage.
- Whether the bottom material is soft enough that the ship's hull will not be ruptured.
- A water depth that is shallow enough that the vessel will not sink below the main deck level, yet deep enough that fire boats, salvage barges, and tugs can approach. Tides and other water level fluctuations must be considered.
- Not choosing an area known to have strong winds or currents that could hamper firefighting or salvage efforts.

Southeast Texas a	and Southwest	Louisiana A	rea Contingency	Plan
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3600 Vessel Fire at Pier

A UC will be established with the fire department having jurisdiction as the lead agency. The fire department is responsible for fighting the fire; the USCG is responsible for port and waterway safety. Initially, the USCG should set safety zones to ensure public safety. The USCG may assist in requesting resources such as foam, SUPSALV, communications, and scientific support.

The fire department IC may request mutual aid assistance locally through the respective local mutual aid association depending on where the incident occurs. In Texas, call the Sabine Neches Chiefs Association (SNCA) and in Louisiana, call the Southwest Louisiana Mutual Aid Association (SLMA). Federal assistance should be requested through the USCG. Phone numbers for these resources are located in section 7000.

The USCG will provide technical assistance, ensure waterside safety and:

- Assign marine fire-fighting coordinator.
- Assign a Marine Inspector as a fire department liaison that will also act as a COTP assistant.
- Provide USCG and other federal response forces as directed by the COTP.
- Coordinate a small boat patrol of safety zone as directed by the COTP.

3700 Vessel Fire Underway or at Anchor

In the event of a fire on a vessel that is underway within the COTP area, efforts may be made to moor the vessel to facilitate firefighting efforts. If after consultation between the USCG, the fire department, and port officials, it is decided that mooring the vessel is not feasible, then the vessel will be directed to a suitable anchorage or grounding site.

If the vessel is unable to enter port or is denied entry, efforts will be made to obtain firefighting technical support and operational assistance from the local fire departments and companies with marine firefighting capabilities. The next consideration would be to consult with the RP to determine the need for contracting a commercial firefighting company. Subsequent to successful search and rescue operations, the primary concern with offshore vessel fires is prevention of pollution of United States waters, disruption of port functions, and destruction of property. In these instances the USCG will:

- Conduct firefighting with USCG personnel only to the extent required to conduct Search and Rescue (SAR) in a safe manner.
- Consult the Area Contingency Plan (ACP) for more details on oil spill and hazardous material release response operations.

3800 Vessel Stability Considerations

The large volumes of water often used combating fires can have a negative impact on vessel stability, jeopardizing the safety of the vessel and personnel on board. The most important consideration regarding vessel stability is the control of a vessel's list. Factors affecting stability:

- The free surface of all liquids on board,
- The integrity of the hull,
- Whether the double bottoms are empty or full,
- Integrity of watertight boundaries during flooding, and
- Flatness of the hull bottom if the vessel is in contact with the bottom.

Vessel owners and operators of oil tankers and offshore oil barges are required to prearrange prompt access to computerized, shore-based damage stability and residual strength calculation programs, available 24 hours a day, as required by 33 CFR 155. Similarly, owners and operators of inland oil barges are required to have vessel plans necessary to perform salvage, stability, and residual hull strength assessments at a shore based location, available 24 hours a day. The USCG Marine Safety Center can assist the IC/UC with stability concerns and is available 24 hours a day. Their phone number is in the logistics section.

3900 Facility Fires

Initial response operations will be the responsibility of facility personnel. Owners/operators of a facility should develop their own contingency plans to respond to a fire or explosion at their facility. Most waterfront facilities in the COTP Zone are linked in mutual aid associations such as the SNCA in Texas and the SLMA in Louisiana. The response to a facility fire is basically the same as a vessel fire. The organization and responsibilities are listed in the vessel section. Please see section 3000 for additional information.

3901 Emergencies during Firefighting Operations

This section addresses emergencies that develop during marine fire-fighting operations; e.g., secondary explosions, injuries, trapped personnel, loss of water supply, vessel drifting or sinking, etc.

No one can predict what is going to happen next during any emergency response operation. The IC/UC can greatly reduce the risk to personnel and property by employing sound IC/UC practices to the operations and control of the incident.

Personnel appointed to the IC/UC system must have intimate knowledge and experience in the area of their assignment. Detailed attention to the areas of personnel safety, accountability, medical monitoring, logistics, and staging, may identify unseen hazards and/or allow the IC/UC to deal with unpredictable events in a safe and timely manner. The IC/UC should be educated in NFPA 1500 and 29 CFR 1910.

4000 Training

Coordinated interagency training exercises should be carried out annually to ensure proper response to firefighting emergencies. Scenarios should be developed so that a maximum number of resources are exercised

There are several different fire-fighting courses useful to COTP personnel. Texas A&M University, Emergency Services Training Institute, located in College Station, TX, offers a 40 hour, one week program aimed at providing personnel in marine industry and transportation with expertise in various phases of shipboard firefighting and emergency procedures. A schedule of classes and fees, if any, can be obtained directly from the University:

Texas A & M University Service F. E. Drawer K College Station, TX 77843

Phone: (979) 458-6805 or (979) 845-7642

Louisiana State University (LSU), Fire and Emergency Training Institute, located in Baton Rouge, LA, offers multiple programs aimed at providing personnel in marine industry and transportation with expertise in various phases of shipboard/marine firefighting emergency procedures considerations. A schedule of classes and fees, if any, can be obtained directly from the University:

LSU Fire & Emergency Training Institute 6868 Nicholson Drive Baton Rouge, LA 70820 Phone: (800) 256-3473 or (225) 766-0600

The US Maritime Administration in cooperation with Delgado Community College in New Orleans, LA, offers two courses in marine firefighting for the marine industry. One is a two-day course for barge personnel; the other is a four-day course for ship's personnel. For course information and schedules contact:

Mr. Tom Mount, Coordinator Marine Firefighting Program Delgado Community College 615 Park Ave. New Orleans, LA 70119 Phone: (504) 483-4038

Great Lakes Region Marine Fire Training Center 2600 Eber Rd. Swanton, OH 43558 Phone: (419) 259-6362

4100 Local Fire Department Training

All local fire departments conduct continuous training programs for their personnel. This training covers all phases of firefighting from prevention to overhaul and investigation. Considerable attention is also focused on logistics and hazardous materials.

The importance of cooperation and cross training between USCG units and local industrial and municipal fire departments cannot be overemphasized. Personnel become familiar with various equipment and methods that facilitate rapid response actions and communication during actual fires. The COTP may access the local fire department school for USCG personnel. This will help create an integrated firefighting system ensuring the best possible protection for the port area.

5000 Finance

In general, funding for USCG firefighting activities must come from USCG Operating Expense funds. Under some limited circumstances, the Oil Spill Liability Trust Fund (OSLTF) or Comprehensive Environmental Response, Compensation, and Liability (CERCLA) Trust Fund of 1980 and OPA '90, P. L. 101-380, may be available to reimburse firefighting expenses. This is limited only to those situations where the fire is fought specifically to abate the potential for a pollution incident. Firefighting activities related to the safety of life or property are generally not contracts for responding to discharges that pose substantial threat to public health or welfare.

5100 Financial Responsibility

If there is not a RP, the USCG can open the OSLTF/CERCLA if there is an oil or hazardous chemical spill or threat of one. If there is a RP and Federal funds are used for response expenses, those expenditures WILL be recovered from the RP. The COTP shall generate a Pollution Removal Authorization for other emergency response organizations that have been requested and utilized.

5200 Government Liability

An owner/master, charter, or agent who wishes to enter or move within the port to save a vessel or cargo must indemnify (hold harmless) the port, its board, or federal and local governments for damage or injury suffered as a result of fire or vessel movement during a casualty.

5300 Response Cost Considerations

Response funding is available through the OSLTF or CERCLA when a substantial threat of pollution or HAZMAT release to the marine environment exists, in which case commercial resources can be contracted for mitigation.

6000 Radio Communications

The following is a list of radio frequencies that may be utilized during a fire response operation:

- VHF-Channel 81A
- VHF-Channel 21
- VHF-Channel 22
- VHF-Channel 06
- 800 Megahertz
- VHF Fire Mutual Aid

The FCC has designated three VHF-High frequencies, 154.126, 154.260, and 154.290 MHz, as the Fire Mutual Aid Radio Systems to provide common communications between firefighting units from different agencies operating at a common incident. Terminology used during a fire incident should be in common day to day language.

Additional sources of communications equipment:

• Requesting the use of local fire department communication vans/command posts is recommended for all marine response incidents (see Resources list sec 8620 & 8630).

•	A wide range of deployable communication equipment is available from USCG Atlantic Area/Maritime Defense Zone Atlantic. To activate this resource call (757) 398-6499 during daytime hours or the USCG Atlantic Area Command Center (757) 398-6231 after hours.

6100 International Common Public Safety Channels

Table 1 International Common Public Safety Channels

800 MHz BAND INTERNATIONAL COMMON PUBLIC SAFETY CHANNELS							
DESIGNATOR	USE	MOBILE/PORT. TRANSMIT FREQUENCY	MOBILE/PORT. RECEIVE FREQUENCY	CTCSS (TONE SQUELCH FREQUENCIES)			
ICALL RP	CALLING, ESTABLISHING CONTACT	821.0125 MHZ	866.0125 MHZ	156.7 HZ			
ITAC 1 RP	TACTICAL REPEATER	821.5125 MHZ	866.5125 MHZ	156.7 HZ			
ITAC 2 RP	TACTICAL REPEATER	822.0125 MHZ	867.0125 MHZ	156.7 HZ			
ITAC 3 RP	TACTICAL REPEATER	822.5125 MHZ	867.5125 MHZ	156.7 HZ			
ITAC 4 RP	TACTICAL REPEATER	823.0125 MHZ	868.0125 MHZ	156.7 HZ			
ICALL TA	CALLING, ESTABLISHING CONTACT	866.0125 MHZ	866.0125 MHZ	156.7 HZ			
ITAC 1 TA	TACTICAL SIMPLEX	866.5125 MHZ	866.5125 MHZ	156.7 HZ			
ITAC 2 TA	TACTICAL SIMPLEX	867.0125 MHZ	867.0125 MHZ	156.7 HZ			
ITAC 3 TA	TACTICAL SIMPLEX	867.5125 MHZ	867.5125 MHZ	156.7 HZ			
ITAC 4 TA	TACTICAL SIMPLEX	868.0125 MHZ	868.0125 MHZ	156.7 HZ			

7000 Firefighting Resources

7100 Agency Telephone Numbers

Table 2 Emergency Response, Salvage and Marine Fire Fighting Contact Information

Federal:				
USCG NSF	252-331-6000			
Gulf Strike Team	251-441-6601			
Marine Safety Center	202-372-1001			
USCG SFO Galveston	409-632-6702			
USCG Station Sabine	409-971-2194			
USCG District Eight	504-589-6225			
Marine Safety Unit Port Arthur	409-723-6500			
Marine Safety Unit Lake Charles	337-491-7800			
USN SUPSALV	202-781-1731			
US Army Corps of Engineers	409-766-3899			
NOAA	301-713-2024			
EPA	800-887-6063			
FBI (Beaumont)	409-832-8571			
FBI (Houston)	713-693-5000			
FBI (Lake Charles)	337-433-6353			
US Customs Service	877-227-5511			
FEMA	202-898-6100			
Red Cross (Beaumont)	409-729-1717			
Red Cross (Lake Charles)	337-478-5122			
Salvation Army (Beaumont)	409-896-2361			
Salvation Army (Pt. Arthur)	409-983-2229			
Salvation Army (Lake Charles)	337-433-4155			
State Law Enforcem	ent:			
Texas: Texas DPS	512-424-2000			
Louisiana: LA State Police	877-925-6595			

Local Fire for SE Texas:	
Beaumont FD	409-839-4307 or
Beaumont FD	409-880-3901
Orange FD	409-883-1050
Port Arthur FD	409-983-8700 or
Fort Artiful I-D	409-983-8701
Port Neches FD	409-722-3312 or
	409-722-5885
Sabine FD	409-971-2421
Local Fire for SW Louisian	
Emergency (911 Communications)	337-439-9911
Local Law Enforcement for SE	Texas:
Beaumont PD	409-832-1234
Jefferson Sheriff's Office	409-835-8411
Port Arthur PD	409-983-8600 or
	409-983-8601
Orange PD	409-883-1026
Orange Sheriff's Office	409-833-1050
Local Law Enforcement for SW L	
Cameron Parish Sheriff	337-775-5111
Emergency Services for SE Te	
Jefferson County Emergency Management	409-722-4371
Orange County Emergency Management	409-882-7895
Orange Director of Emergency Services	409-882-7895
Beaumont Emergency Management Department	409-880-3901 or
Beaumont Emergency Management Department	409-838-6371
Emergency Services for SW Lou	
Calcasieu Parish Emergency Management	337-721-3800
Cameron Parish Emergency Management	337-775-5718
Commercial Fire-Fighting Reso	urces:
Wild Well Control	281-353-5481
Williams	409-727-2347
Boots & Coots	713-621-7911
Marine Chemists	
Ken Mercer	409-832-6409

7200 Southeast Texas Boat Ramps/Cranes

Table 3 List of SE TX Boat Ramps/Cranes

Southeast Texas Boat Ramps/Cranes						
			MPS	•		
Ramp Name & Phone Number	Location	Ramp Surface	# of Ramps	Parking Surface	GPS Reading	Lig hts
Cow Bayou Boat Ramp No Phone	Hwy 87 & Cow Bayou Bridge in Bridge City	Hard "Cement"	1=24	291'x120' "Cement"	30° 02' 48" N 093° 49' 12" W	No
Walter Umphrey Boat Ramp No Phone	TX/LA border at Walter Umphrey on Pleasure Island off MLK Dr.	Hard "Cement"	2=15'	378'x111' 129'x198' 288'x256' "Cement"	29° 45' 50" N 093° 53' 37" W	Yes
Pleasure Island RV Park Boat Ramp No Phone	Behind Logans Music Park on Pleasure Island off MLK Drive	Hard "Cement"	2=12'	399'x201' "Cement"	29° 52' 02" N 093° 55' 49"W	Yes
Port Arthur Boat Launch No Phone	MLK Drive and North Levee Road on Pleasure Island	Hard "Cement"	1=30'	165'x369' "Cement"	29° 52' 03" N 093° 55' 20" W	Yes
Chicken Crossing Boat Ramp No Phone	South 1st Street & Texas Bayou in Sabine Pass, TX	Hard "Cement"	1=15'	144'x309' "Rock"	29° 42' 41" N 093° 51' 37" W	Yes
Sea Rim Marshlands Unit Ramps (409) 971- 9220	Across from Sea Rim State Park on Hwy 87	Hard "Cement"	2=15' / 27'	312'x342' "Asphalt"	29° 41' 03" N 094° 01' 58" W	Yes
Boat Ramp by the U.S. Fish and Wildlife Office No Phone	In the MWR next to the office off Hwy 87 and Clam Lake Road	Hard "Rock"	1=12'	70'x100' "Rock"	29° 41' 38" N 094° 05' 51" W	Yes
Boat Ramp by the Single Lane Bridge No Phone	In the MWR next to the single lane bridge off	Hard "Rock"	1=12'	40'x60' "Rock"	29° 40' 38" N 094° 05' 01" W	Yes

Southeast Texas Boat Ramps/Cranes								
	RAMPS							
	Hwy 87 and Clam Lake Road							
Clam Lake South Ramp No Phone	In the MWR on the South side of Clam Lake off Hwy 87 and Clam Lake Road	Hard "Cement"	1=12'	50'x100' "Rock"	29° 40' 42" N 094° 04' 53" W	No		
Star lake Launch No Phone	In the McFaddin Wildlife Refuge (MWR) off Hwy 87 & Clam Lake Road	Hard "Cement" Soft "Earth"	2=12' Soft 12' Hard	72'x130' "Rock"	29° 41' 19"N 094° 09' 26"W	Yes		
High Island 124 Bridge Boat Ramp No Phone	Hwy 124 & High Island on the I.C.W.	Hard "Cement"	2=12'	204'x105' "Rock"	29° 35' 40" N 094° 23' 24" W	No		
Convergence Boat Ramp No Phone	North of Vidor on Fort Oak Ranch Road	Hard "Cement"	1=18'	96'x126' "Rock"	30° 04' 28" N 093° 50' 47" W	No		
Colliers Ferry Landing Ramp No Phone	At the end of Pine Street in Beaumont, TX	Hard "Cement"	4=15'	390'x240' "Cement"	30° 07' 58" N 094° 05' 44" W	Yes		
Blue Birds Fish Camp Ramp (409) 886- 9904	Orange, TX off North Simmons Dr.	Hard "Cement"	1=33'	285'x138' "Asphalt"	30° 06' 42" N 093° 43' 36" W	Yes		
Orange Boating Club (409) 883- 8023	FM 1006 & Adams Bayou	Hard "Cement"	1=8' 1=16'	300'x300'x 300' Triangular "Shell"	30° 03' 58" N 093° 44' 56" W	Yes		
Lotties Landing No Phone	FM 1006 & Adams Bayou	Hard "Cement"	1=8' 1=20'	300'x200' "Shell"	30° 03' 58" N 093° 44' 51" W	Yes		
105 & Cow Bayou Boat Ramp No Phone	Orangefield off Hwy 105	Hard "Shell"	1=20'	123'x69' "Rock"	30° 04' 29" N 093° 50' 47" W	No		
Bridge City Bait Boat Ramp	2682 W Roundbunch Bridge city, TX	Hard "Cement"	1=18'	114'x90' "Rock"	30° 02' 17" N 093° 47' 45" W	Yes		

Southeast Texas Boat Ramps/Cranes						
			MPS	•		
(409) 886- 1115						
Toups Marina (409) 735- 9790	3108 Texas Ave Bridge City, TX	Hard "Cement"	1=8'	80'x40' "Shell"	30° 02' 42" N 093° 49' 14" W	No
Enervest (409) 735- 3341	End of Bessie Heights Rd.	Hard "Cement"	1=26'	No Designated Area	30° 02' 41" N 093° 55' 14" W	No
Chevron Dock No Phone	Inside UNOCAL Refinery off Hwy 366 in Pt. Neches	Hard "Cement"	1=15'	120'x50' "Gravel"	30° 00' 52" N 093° 57' 50" W	Yes
Port Neches Park (409) 722- 9726 / 722- 9734	Port Neches Park off Merriman St., Pt. Neches	Hard "Cement"	2=20'	330'x180' 115'x513' "Asphalt"	29° 59' 45" N 093° 57' 22" W	Yes
Benoit Rainbow Marina No Phone	Off Hwy 87 at Rainbow Bridge, Pt. Arthur	Hard "Cement"	1=24'	210'x150' "Shell/Gras s"	29° 58' 13" N 093° 52' 28" W	Yes
Beans Fleet No Phone	Yacht Club Road in Port Arthur	Hard "Cement"	1=15'	975'x174' "Grass/She II"	29° 58' 01" N 093° 51' 40" W	Yes
Bailey's Fish Camp (409) 735- 4298	Lake Street at the dead end, Bridge City	Hard "Cement"	3=12'	90'x120' "Hard Packed Dirt"	29° 49' 31" N 093° 50' 25" W	No
SU Canal No Phone	Off Hyw 87 1/2 mile east of the Neches River	Soft "Dirt"	1=20'	No Designated Area	30° 00' 02" N 093° 51' 59" W	No
Rainbow Ridge No Phone	Off Hwy 87 at the foot of the Rainbow Bridge on the North Side	Soft "Dirt"	1=15'	No Designated Area	29° 59' 28" N 093° 52' 11" W	No
USCG ACOE Docks (409) 985- 9602	TB Ellison Parkway, Pleasure Island	Hard "Cement"	1=18'	18'x150' "Shell"	29° 52' 00" N 093° 53' 51" W	Yes

Southeast Texas Boat Ramps/Cranes							
		RA	MPS				
Causeway Bait Boat Launch	Hwy 82 S. MLK, TX/LA Bridge	Hard "Cement"	2=24'	120'x300' "Shell"	29° 45' 54" N 093° 53' 53" W	Yes	
Causeway LA No Phone	Hwy 82 at Sabine/Neches Canal, LA	Hard "Cement"	1=24'	107'x100' "Shell"	29° 46' 05" N 093° 53' 32" W	No	
Firestone Boat Ramp No Phone	Firestone Recreational Club off Roundbauch Rd. in Bridge City	Hard "Cement"	1=15'	183'x228' "Rock"	30° 02' 15" N 093° 47' 33" W	No	
Stelly's Landing	H.O. Mills Blvd./Portland on Taylor's Bayou	Hard "Cement"	1=22'	300'x100' "Shell"	29° 53' 06" N 094° 02' 29" W	No	
J.D. Murphee Wildlife Refuge (409) 736- 2551	Hwy 73	Hard "Cement"	1=50'	100'x200' "Shell"	29° 53' 09" N 094° 02' 07" W	Yes	
Sail Board Ramp	Jean Jorgensen Rd. at N. Revetmet Rd in Pleasure Island	Hard "Cement"	1=12'	150'x35' "Asphalt"	29° 55' 26" N 093° 32' 17"W		
West Port Arthur Bridge and ICWW	Under Hwy 87 bridge	Hard "Cement"	1=15'	123'x220' "Shell "	29° 49' 27" N 093° 57' 53"W		
Jr.'s Boat Launch	Hyw 87 at Keith Lane	Hard "Shell"	1=14'	30'x100' "Asphalt"	29° 45' 37" N 093° 56' 14"W		
Battleground State Historical Park	1.3 miles S from 4-way stop in Sabine Pass	Hard "Cement"	2=15'	200'x700' "Asphalt"	30° 44' 04" N 093° 52' 30"W		
Broadway Boat Ramp	Corner of Braodway & S. 1st Avenue in Sabine Pass	Hard "Cement"	2=15'	400'x600' "Asphalt/G ravel"	29° 44' 25" N 093° 53' 23"W		
	Barge Loading Ramps						
George R. Brown Barge Ramp No Phone	Old Hwy 90 in Rose city	Hard "Metal"	1=12'	50'x50' "Shell"	30° 04' 46" N 093° 03' 31"W		

Southeast Texas Boat Ramps/Cranes								
RAMPS								
Port Neches Towing Barge Ramp (409) 722- 9314	Off Dearing St. in Pt. Neches		Hard "Metal"	1=15'		00'x50' Shell"	29° 59' 44" N 093° 56' 55"W	
Enervest Barge Ramp (409) 735- 9790	End of Bessie Heights Rd.		Hard "Metal"	1=14'	D	Jo Designated Area	30° 02' 41" N 093° 49' 14"W	
			CRA	NES				
Dock Location Number	and Phone	GPS Reading		Size o Dock	of	# of Fixed Cranes	# of Non-fixed Cranes	Lig hts
Burton Ship Y (409) 735-249		30° 02' 12" N 093° 47' 56"W		400'	1	0	2	No
All-About Marine/Orange Marine (409) 313-0525 / 670-1703		30° 03' 56" N 093° 44' 45"W		1,000)'	0	7	No
Crumler's Ship Yard near the Port of Orange (409) 886-7934		30° 04' 26" N 093° 43' 18"W		1,000)'	0	8	No
Orange Ship Building (409) 882-9311		30° 05' 05" N 093° 44' 02"W		400'	,	0	1	Yes
Friede Goldman Orange Front Yard (409) 882-9311		30° 05' 00" N 093° 43' 28"W		3,000)'	3	8	No
Next to old GSU		30° 03' 44" N 093° 43' 23"W		600'	1	0	4	No
North Star Ste	el	30° 04' 41" N 093° 04' 30"W		600'	1	1	0	Yes
TGS - Beaumont Bulk Terminal		30° 04' 32" N 093° 04' 57"W		2,700)'	2	0	Yes
Port of Beaumont		30° 04' 41" N 093° 05' 18"W		3,000)'	1	0	Yes
CBI		30°05'17"N 094°05'30"W		3000	,	1	0	No
Bosco Construction (409) 738-2007		30°05'31"N 094°05'18"W		100	,	0	2	No
Associated Marine (409) 962-0924		29°58'11"N 093°54'50"W		200	,	0	2	Yes

Southeast Texas Boat Ramps/Cranes							
RAMPS							
Marine Fueling Services, Inc.	29°58'05"N	1500'	1	1	No		
(409) 962-8424	29 38 03 N 093°51'34"W	1300	1	1	No		
Carotex	29°58'16"N	600'	0	1	Yes		
(409) 962-0251	093°51'35"W	000	U	1	168		
Horizon Offshore (409) 962-4731	29°57'09"N 093°51'51"W	2400'	0	5	Yes		
Newpark	29°57'29"N						
(409) 963-2712	093°51'49"W	1200'	0	1	Yes		
Marine Fabrication &							
Repair	29°57'01"N	300'	0	1	No		
(409) 962-9294	093°51'55"W						
Atlantic Shippers	29°55'32"N	1000'	0	1	Yes		
(409) 962-5216	093°52'47"W	1000	U	1	168		
Vessel Repair	29°55'15"N	1500'	0	2	Yes		
(409) 962-1302	093°53'02"W	1300	Ů		105		
R&R Marine Maintenance							
Inc	29°54'58"N	800'	0	2	Yes		
(409) 963-0035)	093°53'17"W						
Lone Star Marine	29°56'29"N	60'	0	1	Yes		
(409) 962-1801	093°52'00"W						
Port of Port Arthur (409) 983-2011	29°51'50"N 093°56'08"W	5000		0	Yes		
Sabine Offshore Services	29°42'42"N						
(409) 971-2377	093°51'33"W	600'	0	3	Yes		
Rowan	29°42'50"N	20002	2	1	Vac		
(409) 971-2691	093°51'38"W	3000'	(Large)	1	Yes		
Tesoro					Yes		
(409) 971-2144	29°43'17"N	400'	0	2	(Fe		
	093°51'55"W				w)		
Friede Golmand Sabine							
Yard	29°43'24"N	900'	0	1	Yes		
(409) 971-2000	093°52'05"W						
Caldive	29°43'33"N	100'	0	1	Yes		
(409) 971-2377	093°52'10"W						
USCG	29°43'40"N	150'	1	0	Yes		
(409) 971-2194	093°52'10"W		0				
Offshore Marine Services (409) 971-2705	29°44'15"N 093°53'01"W	400'		1	No		
Eldridge Construction	29°44'28"N	/					
(409) 971-2495	093°53'28"W	200'	0	1	Yes		
Friede Golmand Dry Dock	29°49'21"N	200 E4	1	1	Vac		
(409) 985-0532	093°57'20"W	300 Ft	1	1	Yes		

Southeast Texas Boat Ramps/Cranes						
RAMPS						
Motiva Texaco Island and						
United Marine-	29°50'22"N	1200'	0	1	Yes	
(409) 989-7174 / 983-1010	093°57'21"W					
Gulf Copper	29°50'50"N	100'	0	2	No	
(409) 983-1691	093°58'12"W	100	U	3	140	

7300 Southwest Louisiana Boat Ramps/Cranes

Table 4 List of SW LA Boat Ramps/Cranes

Southwest Louisiana Boat Ramps/cranes							
BOAT RAMPS							
Ramp Name & Phone Number	Location	Ramp Surface	# of Ramps	Parking Surface	GPS Reading	Lights	
Niblets Bluff Park Boat Launch (337) 589- 7177	3409 Niblett Bluff Rd. Vinton, LA	Hard "Cement"	2 = 15'	150'x150' "Shell"	093°40'48".18"W 30°11'56.02"N	Yes	
Fitzenreiter Boat Launch No Phone	End of Fitzenreiter Road Lake Charles, LA	Hard "Cement"	1 = 15'	280'x125' "Shell"	093°11'51.66"W 30°15'56.36"N	No	
Intracoastal Park Boat Launch (337) 762- 3182	7955 Park Rd. US Hwy 27 & Park Rd. Lake Charles, LA	Hard "Cement"	2 = 15', 25'	400'x100' "Shell"	093°20'47.02"W 30°03'57.30"N	Yes	
LaFleur Park Boat Launch No Phone	Under 2-10 Bridge - End of Cove Lane Lake Charles, LA	Hard "Cement"	1 = 20'	750'x75' "Shell"	093°16'18.42"W 30°11'47.47"N	No	
Prien Lake Park Boat Launch No Phone	West of Prien Lake Rd. & Magnolia St. Lake Charles, LA	Hard "Cement"	2 = 30', 30'	125'x400' 125'x260' "Shell"	093°16'01.58"W 30°11'24.19"N	No	
Parkside Boat Launch (337) 855- 7591	2735 Sam Houston Jones Pkwy Moss Bluff, LA	Hard "Cement"	1 = 20'	90'x200' "Shell"	093°14'57.36"W 30°18'12.20"N	No	
Riverside Boat Launch No Phone	1000 block Miller Ave. Westlake, LA	Hard "Cement"	1 = 12'	50'x100' "Shell"	29°35'40"N 094°23'24"W	No	

CRANES							
Dock Location Phone Number	GPS Reading	Size of Dock	# of Fixed Cranes	# of Non- fixed Cranes	Lights		
Burton Ship Yard (409) 735- 2491	30° 02' 12" N 093° 47' 56"W	400'	0	2	No		

8000 USCG Diving Operations Inspection Guide

The inspection of a dive site can be conducted much like an inspection of a barge or vessel. The three main sections of interest are documentation, personnel and equipment.

Applicability –The outer continental shelf, and from any vessels required to have a COI regardless of their geographic location. 46CFR Part 197.202

Designation of Person-in-Charge – The diving supervisor must be designated in writing. No law or rule that I have seen states what the form is to look like. I have seen memorandums style letters, and I have seen the designation be as simply as a supervisor's name on a dive log (dive logs are legal documents). The dive supervisor must be known not only to the dive crew but also all stakeholders in the dive operation. 46 CFR Part 197.210

Operations Manual - 46 CFR Part 197.420 This must be on the dive site. It will be located in the dive shack or near the rack if the jobsite does not have a dive shack. Many companies label this as the "Safe practice manual". Whatever it is called the following information must be provided; Safety procedures, personnel assignments, emergency procedures, and operating procedures with respect to use of burning, welding and underwater tools.

Logbook - 46 CFR Part 197.480 this does not have to be a BOOK, and in most cases it is not. Dive supervisors will have a running log, and a stack of dive logs. Individual divers will have their logbooks with the logged dives that they have made throughout their careers. The dive logs MUST have the following info:

- Date, Location of dive, mode of diving (scuba, air, mixed gas, or SAT)
- The names of the supervisor diver, standby diver, tender, and standby tender
- Weather condition, water visibility, currents, temperature
- The type of work being performed
- Time diver leaves surface, leaves bottom, reaches surface, times at each water stop, repeat group, and surface interval if less than 24 hours from last dive.

8100 Dive Station

The following equipment MUST be at the dive station and continuously monitored throughout the duration of each dive:

- Gauges. A gauge indicating diver depths must be at the dive location for surface supplied divers. This is called the pneumofathometer or Pnuemo gauge.
- Timekeeping Device. Offshore industry standard is TWO stopwatches on site. This is in case one has a dead battery in the middle of a dive. It is also Standard practice on

decompression dives, especially when running a chamber to synchronize watches with the Tenders prior to every shift. The tenders operate the chamber, therefore tenders or any chamber operator MUST have their watches synchronized with dive supervisors.

- Dive Tables applicable to dive.
- Treatment Tables.
- Primary Breathing Supply.
- Secondary Breathing Supply. Required for dives deeper than 130fsw. Industry standard is to have a rack or manifold with Primary air from a compressor, secondary air from a separate compressor and high pressure air bottles as a third air supply. The HP (high pressure) air will usually be labeled on the rack as emergency or HP air. All valves should be labeled on the rack.

8200 Equipment on Deck

- Air compressors system. The system must have a pressure vessel (known as volume tank) that has check valve on inlet side, pressure gage, a relief valve, and a drain valve.
- Air quality tests. Every breathing air compressor must be tested for air quality every 6 months.
- Dive Hoses. Hoses will be made up of communications wire, strength line, pneumofathometer hose and breathing gas hose.
- Diving Helmets. The dive hats that will be encountered will be a Superlight, miller or Gorski. Each of these brands meets the requirements. They are all REQUIRED to be inspected by the manufacturer annually. Each Dive had should have a sticker on the hat, or the certificate at the dive site.
- Divers Safety harness. Look for a positive buckling system and ensure that the hose is not being pulled by the helmet. This harness will have the emergency gas bottle (the bailout) married into it.
- PVHO-General (the chamber, or the can). Must be built in accordance with ASME PVHO-1. On the site inspectors should look to see that chambers have shut off valve located within a foot of all pipe penetrating pressure boundaries. Have a two way communications between the chamber operator and the diver in the chamber (most often sound powered phones). Look for pressure gage for each compartment of chamber. Also inspectors should ensure that a person can lay flat in the chamber. There should be portholes for operator to see the diver in chamber.

8300 Guidelines for Reviewing a Salvage Plan

For any salvage operation several different techniques can be used to safely achieve the goal. These guidelines intend to show the types of questions that should be asked while formulating a salvage plan and in some cases used for selecting the best plan for a specific operation.

Assessment Phase

This may be done with side scan sonar, remote operated vehicles or divers, or any other means that may gather the required information. If divers are utilized ensure that they are professional hard hat divers familiar that utilize surface supplied equipment. The entire dive team must have certificates from a commercial dive school or the military (US Navy Dive School 2nd class minimum). There is no government issued license for divers, however the International Marine

Contractors Association (IMCA) and the Association of Diving Contractors (ADC) are the most recognized and accepted association for commercial divers. The ADC members carry experience level cards rating from entry level tender to dive supervisor. Things to consider during the assessment phase:

- Is the vessel a hazard to health, Safety or the Environment? If yes then contact spill response and or medical teams.
- Vessel description. Not only get an idea of size & weight but also look for things like; structural integrity of vessel or object to be salvaged, will object shift or move during rigging process, find out condition of cargo (if any). Will cargo shift or leak during lift?
- Review an appropriate incident action plan. When reviewing the plan focus on key elements such as; Is the plan designed for an inland application such as shallow harbors with minimal industrial equipment or is it a plan utilizing tugs, barges and heavy lift cranes?

The Salvage Response Plan must address these following elements: Does the salvage team intend to use heavy lift crane or lift bags? If lift bags are the method of recovery then ask the following questions;

- Why are lift bags used instead of a heavy lift crane? Answers may include cost, time efficiency or unavailability of crane. Is the water deep enough to raise object to surface not just off bottom? Once object is on surface what is the next phase of salvage?
- Tow object? Dewater? If dewatering while lift bags are supporting object how will the salvage team stop load from shifting during dewatering process? Are salvage team members familiar with lift bag characteristics?
- Review the lift bag method thoroughly. A salvage operation can be accomplished safely and efficiently using lift bags, however this is the riskier option. Verify that the divers are familiar with the lift bags. Lift bags are one of the leading causes of fatalities among divers.

If a heavy lift crane is utilized ask;

- How does the salvage team intend to lift object? One lift or multiple? If it is multiple lifts is object being cut? Is burning required, cold cuts, diamond wire saw?
- Are rigging points established on object?
- What other tools are required? Examples are burning holes, welding pad-eyes or jetting underneath a section of the object. Ensure the required equipment is on site.
- Verify that crane/rigging is rated for lift.
- Also ask if the crane has a stable platform. Offshore cranes will be on a barge, however inland channels may be too narrow or shallow for a heavy lift crane barge.
- Once object is on the surface what is the next step?
- Float or tow object?
- Review route and destination. Ensure that the object is in condition to travel the route. Be aware of potential hazards on route, and contingencies for object that may become grounded or sink en route to destination.
- Stow object on Material Barge

8400 Information fo	or Salvage Survey		
Vessels Name/Type:	<u> </u>		
Official Number:	<u></u>		
Flag:			
Owner/Operator: Ph:_	Builder:		
Class Society:_Year:			
LBD			
Brief description of casualty	y:		
 Date/Time of c 	asualty:		
 Extent of dama 	.ge:		
 Hazardous Car 	go Spill?		
 Structural detail 	ls (double bottom):		
 Number of Tan 	ks/Holds (tank soundings)): <u> </u>	
 Drafts (stranding) 	ngs) before: Fwd:	Aft:	
 Drafts (stranding) 	ngs) after: Fwd:	Aft:	
• Tides at time of	f casualty:		
 Type of bottom 	(mud, sand):		
* *	essel's propulsion:		
	alvage operation:		

If vessel is foreign flag, then USCG will need plans such as Lines Plan, General Arrangement, Tank Tables, T&S Booklet, etc... for detailed calculations.