

SECTOR COMMANDER
SECTOR SAN JUAN
#5 CALLE LA PUNTILLA FINAL
SAN JUAN, PR 00901

TAB C TO APPENDIX 21 TO ANNEX C TO CG SECTOR SAN JUAN OPLAN
9776-15 Port Preparedness

This Tab of the U.S. Coast Guard Sector San Juan's Severe Weather Plan is designed to be distributed to the general maritime community, in order to promote coordinated planning and preparation for severe weather. The Captain of the Port (COTP) welcomes comments from any and all members of the maritime community. Please contact the Chief, Planning Division at the letterhead address to discuss heavy weather preparedness.

U.S. COAST GUARD CONTACT NUMBERS	
Sector San Juan Command Center (787) 289-2041	
Sector San Juan Command Center fax (787) 729-6706	
Sector San Juan - Incident Command Post	
<i>(*manned only during response to major incidents - ICS stand up)</i>	
A09	289-8650
A14	289-8652
A15	289-8653
A10	289-8654
A21	289-8655
A12	289-8656
A16	289-8657
A13	289-8657
Prevention Ops Command (787) 729-2378	
Prevention Command fax (787) 729-2377	
Response Ops Command (787) 729-5384	
Logistics Unit (787) 729-4300	
Logistics Command fax (787) 729-6738	
Planning Division (787) 289-2080	
Planning Division fax (787) 729-4317	
RIO Ponce Office (787) 284-4823	
Rio Ponce fax (787) 284-4738	
MSD St. Thomas Office (340) 776-3497	
MSD St. Thomas fax (340) 774-1687	
RIO St. Croix Office (340) 772-5557	
RIO St. Croix fax (340) 778-8185	
National Response Center (for pollution incidents)	
(800) 424-8802	

1. Ports Description.

- a. Puerto Rico (PR) and the U.S. Virgin Islands (USVI) have to contend with the threat of tropical cyclones and other types of heavy weather on an annual basis. The islands are located in latitudes in which tropical cyclones may be generated. Although most storms track west from the coast of Africa, it is possible for storms to form in our local area, giving little time for preparation. Ports in PR and the USVI are considered to be poor hurricane havens due to their lack of sheltered facilities and vulnerability to storm surge, high winds and heavy seas. Channels are generally narrow, surrounded by rocks and reefs, and vulnerable to sand silting caused by storm surges and heavy seas. No heavy weather anchorages exist in the waters in or around PR and the USVI.
- b. All vessels will be prohibited from anchoring in open anchorages to ride out a tropical cyclone. Port users are reminded that under the Ports and Waterways Safety Act, the COTP is responsible for ensuring the safety of all ports and waterways in the port zone. Under this act, the COTP is given broad authorities to direct vessels and waterfront facilities to take specific actions as deemed necessary.

2. Broadcast Notices to Mariners.

- a. When a tropical cyclone threatens Puerto Rico and the U.S. Virgin Islands, the COTP will set port conditions. A Broadcast Notice to Mariners (BNTM) will be issued to inform the maritime community of the setting of each condition. BNTMs are official announcements that are read over VHF-FM radio at regular intervals. The BNTM will be announced on marine channel 16. The notice will then either be read on channel 16 or an identified working frequency. In addition to the setting of port conditions, BNTMs generally include information such as the weather forecasts and criteria for vessels requesting to remain in port. Upon setting Port Condition One, the COTP may close ports, and this will be described in the broadcast.

3. Marine Safety Information Bulletins.

- a. A Marine Safety Information Bulletin (MSIB) is another method the COTP uses to disseminate information. It is a short message, which is usually sent via facsimile or electronic mail (e-mail) directly to members of the marine community. Sector San Juan welcomes requests from port users to be placed on the fax and / or e-mail lists to receive MSIBs automatically. Similar to a BNTM, the MSIB will contain information concerning port conditions, requirements for vessel movements, requirements for facility/vessel security, etc.

4. Sector San Juan Public Outreach and Responsibilities.

- a. During the off-season (Heavy Weather Condition Five), Sector San Juan will:

- (1) Disseminate Tab C and applicable annexes of this plan to the general maritime community and federal, commonwealth, and territorial agencies as necessary or appropriate.
- (2) Conduct or participate in heavy weather training and / or exercises with members of the maritime community and governmental agencies.
- (3) Professionally interact with members of the maritime community, including:
 - (a) Pilots
 - (b) Dock Masters / marinas
 - (c) Ports Authorities
 - (d) Facility operators
 - (e) Vessel agents, owners, and operators
 - (f) Cruise ship companies
 - (g) Ferry operators
 - (h) Towing / tug operators
 - (i) Salvage companies

- (j) Shipping companies
- (k) Recreational boaters and boating associations
- (l) Federal, commonwealth, territorial, and local emergency management agencies
- (m) Other Coast Guard units (including the Auxiliary)

b. Early in the hurricane season (Heavy Weather Condition Four), Sector San Juan will:

- (1) Coordinate with appropriate PR and USVI agencies and the U.S. Coast Guard (USCG) Auxiliary to provide information to the boating public through public bulletins and notices at local marinas and port facilities. These bulletins will contain information on the expectations of port users, and points of contact for heavy weather preparation and response information.
- (2) Utilize the USCG Auxiliary to educate and assist recreational boaters in obtaining additional information on safe refuge and heavy weather preparation.
- (3) Contact passenger vessels, vessel agents, Ports Authorities, Pilots, and towing vessel companies to discuss their concerns and expectations for the hurricane season.

5. Maritime Community Responsibilities.

a. Vessel masters: When heavy weather threatens, the vessel master will take prompt action to ensure the safety of his/her ship and crew. If at all possible, the master will avoid the storm by putting to sea. Should circumstances dictate staying in port, the master will follow this and other appropriate guidance and use best judgment as to how to weather the storm. Commercial oceangoing vessels or oceangoing barges over 500 gross tons (GT) unable to put to sea must notify the COTP as soon as possible through the submission of an "Application to Remain in Port" (**see**

Tab [G.3](#) or [G.4](#)). Due to the difficulty associated with being unable to outrun the storm and find safe haven, it is the COTP's intent to keep commercial oceangoing tugs/barges in port.

- b. Ports Authorities and local government agencies: Ports Authorities and certain local government agencies are responsible for the security of piers, warehouses, and roadways within their jurisdiction. Ports Authorities may direct vessels to adequate berths and control vessel traffic throughout course of passing heavy weather. At least twelve hours before the predicted arrival of a hurricane, port areas should be secured. Particular attention shall be given to dangerous cargoes within the port. The COTP will communicate intimately with Ports Authorities and local agencies during the evolution of securing the ports.
- c. Pilots: Port pilots should inform the COTP and their respective Port Authority when pilot services are suspended, when services are predicted to resume, and upon resumption of services. Pilots should keep in close contact with the COTP to coordinate vessel movements and advise him/her of any unusual or dangerous situations. All pilots should be especially vigilant when a tropical cyclone approaches. Rapidly rising winds and seas, reduced visibility and higher than normal tidal influences can be expected even well in advance of the predicted arrival of the center of the storm. Pilots should communicate any vessel pilotage concerns immediately to the COTP.
- d. Agents: Ship agents shall ensure the most expeditious means of putting vessels to sea when heavy weather threatens. If a vessel or tug and barge combination (commercial oceangoing - 500 GT or above) wishes to apply for permission to remain in port, the vessel agent must provide to the COTP a written request (Tab G.4) and plan of action to weather the storm.
- e. Waterfront facilities (owner / operators / persons in charge): Prior to the start of hurricane season, the person in charge of a waterfront facility should review and update their facility heavy weather plan and identify berths that are adequate for vessels to weather a hurricane. In coordination with ship agents and the respective Port Authority, adequate mooring

arrangements shall be established for vessels remaining in port during heavy weather.

The person in charge is responsible for ensuring the facility is adequately prepared for impending heavy weather, particularly the preparation of oil transfer and storage facilities and container yards. A comprehensive container-stacking plan should be in place.

- f. Shipping and towing companies: Shipping and towing companies should review or develop hurricane recovery plans which provide for earliest possible resumption of services after the storm has passed. In addition, shipping companies should review and be prepared to implement their post hurricane pollution contingency plans. All towing companies should provide a list of towing vessels available for assistance prior to and after the heavy weather passes.

6. Guidance for Commercial Vessels.

- a. When a tropical cyclone threatens, the absence of sheltered berths or anchorages makes evasion at sea the safest course of action for oceangoing commercial vessels over 500 GT. Some factors that may affect this decision are:
 - (1) The forward speed of the storm.
 - (2) The radius of hazardous winds and seas that can impact a vessel's capability to reach open water and then to maneuver to evade.
 - (3) The time necessary to make preparations to get underway.
 - (4) The time necessary to reach open water.
- b. Of particular concern are vessels, such as tug and barge units that are generally unable to ride out or evade a hurricane force storm. When sustained winds of 34 knots/39 mph (Gale Force) or greater are imminent, preparation to safely moor the tug/barge in harbor should be considered.
- c. Vessels desiring to remain in port must submit a written request to the COTP San Juan prior to the

setting of Port Condition YANKEE. The request may be faxed to the Sector San Juan Command Center at (787) 729-6706. The request form for non-tug and barge vessels is Tab [G.3](#) of this plan. The request form for tugs/barges is Tab [G.4](#).

- (1) Any oceangoing commercial vessel greater than 500 GT permitted to remain in port should have the outboard anchor at short stay, maximum mooring lines out, maintain steam, have a navigation watch set, and maintain a listening watch on Channel 16 VHF-FM.
 - (2) Vessels moored to wharves and piers that cannot get underway should take all necessary precautions to secure the vessel for heavy winds and water surges. Particular attention should be paid to cargo arrangements. Hazardous materials (containerized or bulk) should be removed from the vessel and properly secured ashore.
- d. All ships in refit at local ship repair facilities should maintain a steaming readiness condition appropriate with the port condition set.
- e. Any ship unable to get underway for evasion should consider the safety of its present berth and, if necessary, be towed to an alternate berth upon setting of Port Condition X-RAY or earlier. Early berth shifting allows for the full availability of tugs.
- f. Some waterfront facilities may determine that they will not permit vessels to berth at their docks during heavy weather. However, the COTP will consult with the Ports Authorities, waterfront facilities, and local shipyards at the onset of Port Condition X-RAY to determine if emergency berth assignments will be available. All vessels over 500 GT are required to submit an Application to remain in Port. Part of this application requires a mooring plan AND a letter from the pier/berth owner stating that the vessel is allowed to remain there during the storm.
- g. Conventional oceangoing barges and their supporting tugs, other than integrated tug barges (ITBs), cannot reasonably be expected to evade or ride out a

hurricane force storm at sea. In good weather with minimal sea state, these tug and barge units will typically make 4-6 knots at sea. In moderate weather and moderate sea state, the speed of these tug and barge units will be reduced by as much as 50%, (moderate seas will often precede hurricanes by hundreds of miles). These tugs and barges require good weather to enter port. This means that one of these tug and barge units caught offshore in bad weather (moderate seas or above) may be unable to enter a port and may be required to ride out the storm at sea or risk a difficult entry to port. Either of these options is generally high risk and undesirable. Therefore, COTPs should not order oceangoing barges and their tug escorts out of port or prevent them from entering port within 72 hours of the predicted arrival of gale force winds from a hurricane force storm (Port Condition WHISKEY).

7. Guidance for Recreational Vessels.

- a. Local marinas and yacht clubs should have specific heavy weather plans, which address the issue of safe havens. Hurricane planning requires the active participation of boat owners before the onset of a hurricane season. More successful plans have included:
 - (1) Detailed research and documentation, such as diagrams of the harbor, yacht club grounds, docking arrangements, anchoring techniques, and the evacuation routes for trailerable boats.
 - (2) Arrangements to move non-trailerable boats ashore, if possible.
 - (3) Plans to lash down vessels on shore and arrangements with facilities farther inland to take boats.
 - (4) Plans to remove debris and missile hazards.
 - (5) Setting up "boat buddies" (someone authorized to take care of the boat if the owner is away).
 - (6) Arrangements with weather services for

detailed advance information, and set "triggers" in the weather conditions that will dictate certain actions.

(7) Specific individuals listed to take action on each item.

b. Shallow draft vessels should, if feasible, be removed from the water and firmly secured ashore above the predicted high water mark. Preferably at an elevation of at least 20 feet (30 feet if the storm is posing a worst case threat).

c. If recreational boats cannot be raised and secured on land, they should be storm breasted at the docks with all available fenders and allowances made for tidal changes.

d. All hazardous materials and potential pollutants (e.g., fuel, paint, cleaning supplies, lubricating oils) should be removed from recreational vessels remaining in the water.

8. Preparedness Actions by Severe Weather Port Conditions.

a. Prior to Port Condition WHISKEY:

(1) Individual company and agency heavy weather plans should be reviewed, updated, and implemented prior to June 1st of each year.

(2) Companies should update and publish policy letters on hurricane readiness.

(3) COTP San Juan will ensure the maritime community is notified, via MSIB, that seasonal Heavy Weather Condition Four has been set.

(4) A Port Coordination Team meeting may be called by the COTP and other interested local authorities to review the hurricane preparedness of the port areas at risk, the effectiveness of plans during the previous season, and to determine a post-hurricane meeting place.

- (5) COTP personnel will conduct preliminary surveys of all ports and marinas to determine the present state of readiness and to alleviate potential problems that are discovered.
- (6) The general maritime community will be reminded that all self propelled oceangoing commercial vessels greater than 500 GT shall put to sea or request permission, in writing, from the COTP to remain in port at least 48 hours prior to possible landfall of 34 knot/39 mph (Gale Force) winds (i.e. prior to setting of Port Condition YANKEE). Only vessels that are granted permission will be allowed to remain in port. This includes vessels in lay up.
- (7) Oceangoing tugs with tows shall be put to sea or request permission, in writing, from the COTP to remain in port at least 72 hours prior to possible landfall of gale force winds (i.e. prior to setting of Port Condition YANKEE). Only tugs/barges that are granted permission will be allowed to remain in port.

b. **Port Condition WHISKEY:** (Gale Force winds from a hurricane force storm are expected to arrive at the port within 72 hours).

- (1) COTP San Juan will notify the maritime community that Port Condition WHISKEY has been set by issuing a BNTM and/or MSIB. A BNTM will be used to announce pending port closures and special conditions as they are deemed necessary by the COTP.
- (2) All oceangoing commercial tugs/barges over 500 GT will be prohibited from anchoring within the territorial waters of the COTP San Juan area of responsibility.
- (3) All oceangoing commercial tugs/barges over 500 GT must have permission from the COTP to remain in port.

c. **Port Condition X-Ray:** (Gale Force winds from a hurricane force storm are expected to arrive at the port within 48 hours).

- (1) COTP San Juan will notify the maritime community that Port Condition X-RAY has been set by issuing a BNTM and / or MSIB. A BNTM will be used to announce pending port closures and special conditions, as they are deemed necessary by the COTP.
- (2) Implement notification call-up procedures for key personnel within government agencies and the maritime community.
- (3) Sector San Juan and Ports Authorities personnel will conduct a preliminary survey of the port areas to determine expected arrivals and departures, locate and describe potential problem areas on waterfront facilities, and provide assistance to waterfront facilities requesting information in preparing for the pending storm.
- (4) Measures for providing maximum stability on all vessels should be considered by masters, owner / operators, and vessel agents.
- (5) Plan for the complete clearing of all missile and debris hazards from wharves. Consideration should be given to the banding of drums on pallets no more than two tiers high or laid horizontally with secure dunnage.
- (6) Waterfront facilities should activate their plans for reducing the height of stacked containers at waterfront facilities. Containers should be consolidated into blocks to provide greater stability and be stacked no more than 3 high. Hazardous materials containers should be segregated by class, and placed in the most secure areas that allow for safe inspection after the heavy weather has passed. Sector San Juan personnel will verify the security of all container yards and direct immediate changes where

inadequacies exist. The COTP strongly encourages facility owners / operators to work with the U.S. Coast Guard as early as possible to ensure a secure facility.

- (7) COTP San Juan personnel will verify that regulated facility security systems are operating in accordance with Coast Guard approved facility security plans by evaluating the facilities overall physical security measures, both during the hurricane preparation and recovery phases. These measures are a combination of active and passive systems, devices and trained personnel used to protect facilities from possible threats.
- (8) Waterfront facility owners / operators must notify the COTP of any non-containerized hazardous material or dangerous cargo which they intend to leave in the open. The COTP will insist that all possible action is taken to secure such material.
- (9) Waterfront facilities must commence bringing product storage tanks to their optimum loading state.
- (10) COTP San Juan will ask pilots and industry representatives to provide information regarding vessel location, cargo, destination and estimated time of departure or arrival.
- (11) Barges receiving permission to remain in port may not be moored more than one barge wide.
- (12) Each tug operator should consider maintaining at least one tug on standby for immediate call out for assistance. Ship and tug companies should review or develop hurricane recovery plans which provide for earliest possible resumption of emergency services after the hurricane has passed. In addition, whenever possible, towboats should be available for assisting with the recovery of drifting vessels after passage of the storm.

- (13) Vessels intending to get underway in port areas or entering port should arrange for sufficient tug assistance. The COTP will issue orders requiring notification of arrivals and departures as well as requirements for tugs when conditions merit such actions.
- (14) An inventory of necessary ship's stores should be made to determine that adequate quantities of such items as wire rope, mooring lines, fenders, etc., are on hand to double-up and secure. Supply sources will "dry up" quickly when the alert is sounded.
- (15) Agencies, facilities, and agents will be contacted to determine what actions are to be taken in preparing for the impending heavy weather. Any problem areas noted in the survey will be addressed promptly.
- (16) All cargo handling operations should be planned so as to be completed well before the storm, preferably at least 48 hours before landfall. Anticipate completion of cargo handling operations in time to get vessels out of port. The COTP will consult with shipping and cargo handling interests regarding the time of phase down and termination of cargo handling operations. Anticipate that the COTP WILL order suspension of cargo handling operations during Port Condition ZULU (12 hour warning). Hire and schedule labor accordingly.
- (17) Any vessel (including towboats) with an arrival time of less than 48 hours prior to the time hurricane force winds are predicted may be denied entry. Permission of the COTP will be required prior to entry.
- (18) Oceangoing commercial vessels greater than 500 GT are required to depart the port or the designated representative must request permission, in writing, from the COTP prior to the setting of Port Condition YANKEE. Vessels planning to leave port should depart

as soon as possible after Port Condition X-RAY is set and before Port Condition YANKEE is set.

d. **Port Condition YANKEE:** (Gale Force winds from a hurricane force storm are expected to arrive at the port within 24 hours).

- (1) Ensure that all actions required by Port Condition X-RAY have been completed.
- (2) A BNTM will be issued setting Port Condition YANKEE. It will announce pending port closures and special conditions as they are deemed necessary by the COTP. Ports will be closed to incoming vessels at this time.
- (3) The COTP will begin securing the ports that are expected to be impacted. This could include requiring cessation of waterfront facility operations.
- (4) Continue securing missile hazards at port facilities.
- (5) Continue securing all hazardous materials and dangerous cargoes at waterfront facilities.
- (6) Product storage tanks should be loaded to optimum level for withstanding high winds and flooding.
- (7) Commence termination of cargo handling operations, if not already ordered to do so. Operations will be officially suspended upon the setting of Port Condition ZULU. Plan and hire labor accordingly.
- (8) Masters of vessels allowed to remain in port must follow specific directions of the COTP. They must complete mooring and lashing down operations.
- (9) The COTP will conduct a final poll of all tug and towboat companies to obtain a list of all vessels available for post-storm assistance.

- (10) All final requests by vessels or facilities to move vessels must be approved by the COTP. No moves will be permitted unless the move can be done safely and an adequate lay berth is available. Movements will be coordinated with the respective Ports Authority.
- (11) A final inspection will be conducted of all vessels approved to remain in port during the storm. The inspection will consider the mooring and stowage arrangements.
- (12) Sector San Juan, Port Authority, and waterfront facility representatives will conduct joint inspections of waterfront facilities. Any safety hazards discovered must be corrected immediately.
- (13) All oceangoing commercial vessels greater than 500 GT will be prohibited from anchoring within the territorial waters of the COTP San Juan area of responsibility.
- (14) All ocean going commercial vessels over 500 GT not having written permission to remain in port from the COTP must be at open sea at this time.

e. **Port Condition ZULU:** (Gale Force winds from a hurricane force storm are expected to arrive at the port within 12 hours).

- (1) Ensure that all actions required by Port Condition YANKEE have been completed.
- (2) A BNTM will be issued to announce the setting of Port Condition ZULU. It will detail port closures and any special conditions deemed necessary by the COTP.
- (3) The COTP will secure the waters in selected ports in the COTP zone in accordance with the authority granted in 33 Code of Federal Regulations (CFR), Part 6.
- (4) The COTP will order all cargo handling operations suspended.

- (5) Oil transfer and hazardous materials terminals will ensure that all loading arms and transfer hoses are drained of all product, flanged off, and secured to the dock.
- (6) Vessels moored at wharves shall be ballasted down, have the outboard anchor at short stay, maximum mooring lines out, maintain steam up, have a navigation watch set, and a listening watch on Channel 16 VHF-FM.
- (7) All parties will conduct a final inspection of their areas. Discrepancies noted during earlier surveys will be re-checked.
- (8) Sector San Juan will establish its hurricane watch routine as previously announced. When needed, port users should contact the Sector San Juan Command Center at (787) 289-2041, and ask for the Marine Safety Liaison.

9. Vessel Evacuation Procedures.

a. Vessel Departure Policy.

- (1) Prior to the setting of Port Condition WHISKEY, all tug and barge units greater than 500 GT must have received permission from the COTP to remain in port by completing the application in Tab G.4. All other vessels greater than 500 GT should depart prior to the setting of Port Condition YANKEE. In the event they are not capable of putting to sea, the person in charge of the vessel must submit a written request to the COTP to allow the vessel to remain in port. The request form is Tab [G.3](#) of this plan.
- (2) If a vessel's request to remain in port is denied by the COTP, all parties (vessel, agent, COTP, Ports Authority, pilot) will coordinate the vessel's movements out of the port.
- (3) Vessels allowed to remain in port must follow

their approved mooring plan at all times, and must secure the vessel to the satisfaction of the COTP.

b. Vessel Movement Factors. The following are some of the factors considered when the COTP determines a vessel's relative risk, rules on requests to remain in port, and drafts a departure schedule for a port.

- (1) Cargo - none / general / petroleum / hazardous material / bulk or packaged / explosives / etc.
- (2) Vessel bunkers
- (3) Vessel particulars
- (4) Vessel's ability to avoid weather at sea
- (5) Transfers underway
- (6) Berthing requirements
- (7) Dead ship movements
- (8) Tug availability

10. Post-Incident Response.

a. Pollution Response is one of the largest threats facing any port in the aftermath of a tropical cyclone or other heavy weather event is an oil or hazardous substance release into navigable waters. Obviously, during a heavy weather episode the risk of a major pollution incident is increased. All facilities must complete a thorough check of their buildings, tanks, pipelines, and infrastructure. After heavy weather passes, Sector San Juan personnel will be conducting inspections in the ports to verify there are no pollution threats. Facilities are asked to coordinate with the COTP so that ports and port facilities can be opened for business as quickly as possible. When there is a pollution incident after heavy weather passage, a determination as to the appropriate response structure (i.e. ICS or the normal Coast Guard operational response structure) used to respond to the spill/discharge will be made. During an activation of the National Response Framework for major incidents,

spills will be handled as part of the Emergency Support Function (ESF-10) for mitigating Oil and Hazardous Materials spills. The U.S. Coast Guard and the Environmental Protection Agency will combine resources to handle large pollution problems.

- b. Opening Ports and Facilities. Port Conditions are changed only when a damage assessment indicates that relative risks in the port allow a lesser condition. A port may remain closed for days or even weeks if there is severe damage to waterfront facilities, a navigation hazard, or a major pollution incident. BNTMs and / or MSIBs will be issued advising the maritime community of changes in the Port Condition, along with special instructions or notices.

11. Mitigation and Preparation.

- a. Mitigation Efforts. Sometimes the best opportunity to prepare for heavy weather occurs immediately after a storm passes. Infrastructure can be improved, and planned upgrades can be implemented. There is often funding available to make capital improvements. The maritime community should demonstrate proper environmental stewardship by using mitigation techniques in the off-season. Some important post-storm activities include:

- (1) Review and revise pollution response plans to address lessons learned from the storm.
- (2) Inventory pollution response equipment, and make adjustments to stockpiles. Due to the potential inability to re-supply after a storm, facilities must stockpile enough equipment to handle the initial response without outside help.
- (3) Review, research, and plan for disposition of all wastewater, storm water, and debris.
- (4) Facilities should research, designate, and design safe storage areas for containerized or packaged hazardous materials and oil products.

- b. Preparation.

- (1) During hurricane season, shore side bulk liquid storage facilities should consider the following:
 - (a) Keep inventories high during hurricane season.
 - (b) Consider tank height above sea level and liquid height.
 - (c) Examine if earthen berms will be reduced or destroyed by wave action.
 - (d) Plan for reduced berm capacity due to floodwater.
 - (e) Do not plan to use city water to ballast tanks. There may not be enough time or water.
 - (f) Prepare unused tanks to weather a storm long before a hurricane hit is predicted.
 - (g) Disconnect pipes and blank valves at the tanks. If the tank shifts slightly a valve may be torn from the tank causing a major spill.
 - (h) Do not count on receiving product for two days (48 hours) prior to a predicted hurricane hit. The COTP will be controlling shipping to protect ships and the port. Priority will be given to vessels exiting the harbor to evade the storm.
- (2) During hurricane season, facilities and vessels should consider placing their contracted oil spill response organizations on alert or on standby.
- (3) Oil and hazardous chemical transfer terminals should ensure that all loading arms and transfer hoses are drained of all product, flanged off and secured to the dock.
- (4) Tank vessels remaining in port should ballast down.

c. Wreck Removal.

- (1) While the U.S. Coast Guard has an interest in keeping navigable channels clear, the primary responsibility for wreck removal and maintaining project depth within federally maintained channels rests with the U.S. Army Corp of Engineers, as per 33 CFR 245.50. Furthermore, the Corps of Engineers provides the resources for dredging operations that may be required due to silting. Non-federal channels may also be closed until the facility operator or other appropriate entity conducts the necessary wreck removal operations.
- (2) Similar to pollution response, if the National Response Plan is activated, emergency wreck removal and channel clearing is coordinated through the FEMA response management system. Operations will still be conducted by the Corps of Engineers, with the assistance of other agencies, as needed.