NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C. 20594

Safety Recommendation

Date: JAN 17 1995

In Reply Refer To: M-94-46 through -48

Admiral Robert E. Kramek
Commandant
U.S. Coast Guard
Washington, DC 20593-0001

About 2000 on October 9, 1993, an explosion occurred on board the 660-foot-long U.S. tankship OMI CHARGER, which was anchored near Galveston, Texas. A welder, who was making repairs to stop a small leak in the bulkhead between the port ballast and No. 5 port cargo tanks, burned through the bulkhead, initiating an explosion in the No. 5 port cargo tank, which the ship's crew had not properly gas-freed. The welder and the firewatch, both of whom were inside the ballast tank, and the vessel's pumpman, who was working on deck near the No. 5 port cargo tank, were killed by the explosion. The vessel, valued at $12 million, was declared a constructive total loss.[1]

Immediately after the explosion, the third mate on watch broadcast a distress signal, and more than 12 vessels near the mouth of the Houston Ship Channel came to the aid of the OMI CHARGER. While the rapid response resulted in timely evacuation of the tankship's crew, the volunteers' initial efforts to extinguish the fire on the OMI CHARGER were not totally effective. Attempts to control the blaze were not successful until the ocean tug TALLAHASSEE BAY arrived on site and its master, who was trained in marine fire fighting procedures and who was familiar with tank vessels, assumed command of the effort.

[1]For more detailed information, read Marine Accident Report--*Explosion and Fire On Board the U.S. Tankship OMI CHARGER at Galveston, Texas, October 9, 1993* (NTSB/MAR-94/04).

The success of volunteer responders in fighting the fire was due largely to the fact that the OMI CHARGER was in ballast. Had the explosions occurred aboard the tankship when it was loaded with product and on its outbound run from Texas City, Texas, local fire fighting resources would have been overwhelmed; officials would have been required to mount a rapid, multijurisdictional response, coordinated under one command, to extinguish the fire during extensive pollution mitigation activities. The Safety Board is concerned that no such multi-jurisdictional organization exists in the Galveston Bay area of the Houston Ship Channel and that no one has been designated to assume command of such an effort. Moreover, even though the Port of Houston has fire boats, they are not authorized to proceed below Morgan's Point in the upper Galveston Bay, and the OMI CHARGER was not within their jurisdiction.

The Safety Board has long maintained that responsibility for control of vessel fires occurring outside a local county or municipal fire jurisdiction rests with the Coast Guard. The Coast Guard's *Marine Safety Manual*, Volume 6, Chapter 8, Section B, states:

> 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 department and port authorities. COTPs [Captains of the Port] shall work closely with the municipal fire department, vessel and facility owners and operators, mutual aid groups, and other interested organizations. The COTP shall develop a firefighting contingency plan which addresses firefighting in each port in the COTP zone.

However, the Galveston Marine Safety Office does not have a port contingency plan for vessel fires beyond the notification procedures set forth in its *Command Duty Officer's Manual.* What's more, the Galveston Bay Area Contingency Plan, developed in response to the Oil Pollution Act of 1990, is limited solely to pollution response. A comprehensive contingency plan that incorporates fire fighting contingency plans is lacking for the entire Galveston Bay area.

Following a review of this accident, the COTP and the Houston-Galveston Navigation Safety Advisory Committee identified several deficiencies in the Houston-Galveston-Texas City Ship Channel contingency plans. "Although we have identified local private and commercial fire-fighting resources," the COTP stated, "the single largest problem with local plans is the lack of a marine firefighting coordinator for Galveston Bay." Representatives of the local maritime community, local emergency planning committees, and local fire fighting agencies expressed concern about the problem, but indicated that they thought they lacked the authority, the resources, or both to support such an effort. The Safety Board believes these deficiencies must be addressed for the Galveston Bay area and the Houston Ship Channel, particularly in light of the size of the Houston-Galveston petrochemical complex.

Adding to the urgency of the situation is the increase in vessel traffic and congestion in the Houston Ship Channel over the past several years. Interruption of marine traffic on the Houston Ship Channel to the Ports of Houston, Texas City, and Galveston would have enormous

economic impact. Beyond the vessel loss in this accident, the Coast Guard incurred $183,000 in costs for facilities and personnel responding to the accident, and local (nongovernment) responders in the Houston Ship Channel and Galveston Bay area incurred undetermined expenses. Shipping industry losses totaled $8 to 10 million due to marine traffic stoppage and delays in the channel, resulting in subsequent losses to local commercial and industrial organizations. OMI's costs for salvage and removal of the vessel amounted to $1 million; the company's revenue losses and liability costs have yet to be determined.

Vessel salvage and fire fighting are professions that require a high degree of expertise; inexperienced responders might inadvertently allow a preventable channel blockage to occur. The Safety Board concludes that the absence of readily available fire fighting resources such as a port fireboat and marine fire fighting coordinator seriously undermines the effectiveness of a response to a major marine accident in the Houston-Galveston area. A marine fire fighting coordinator, available 24 hours a day, is needed to ensure that marine fires can be quickly brought under control and prevented from spreading in the large petrochemical complex.

The Safety Board believes that the Coast Guard, together with the Texas Department of Public Safety (Division of Emergency Management), which is mandated to "adopt standards and requirements for local and interjurisdictional emergency management plans," should develop a fire fighting contingency plan for the Galveston Bay area that ensures rapid response with adequate fire fighting resources to a major shipboard fire. This plan should clearly delineate lines of authority and responsibility for fighting a shipboard fire and mandate that a written agreement be formulated among fire fighting authorities within the COTP zone.

The Board also believes that the COTP should facilitate agreements between vessel owners and marine salvage firms for contracting fire fighting services. Because private salvors are in the business of saving shipboard property, they should be called as soon as extinguishing a fire is no longer within the municipality's capability. The Coast Guard and local authorities can then assume fire fighting support roles, which they are generally able to fulfill effectively.

The circumstances of the OMI CHARGER accident raise questions about other ports that do not have fireboats or marine fire fighting coordination. Based on a 1994 Safety Board survey and contacts with Coast Guard MSOs, fire fighting contingency plans for the ports of New York, Louisville, Port Arthur, Memphis, Portland, Baltimore, and others are being revised or do not exist. The Safety Board believes that policy and guidelines to assist COTPs in other ports that lack fireboats or marine fire fighting coordination personnel are clearly needed.

The Safety Board cannot understand why the Coast Guard has not fully developed fire fighting contingency plans for all U.S. ports. To ensure a prompt, well-coordinated response to major port fires, the Safety Board urges the Coast Guard to review existing contingency plans for all U.S. ports and, as required by its own *Marine Safety Manual*, Volume 6, Section 8D, "Contingency Planning for Firefighting Activities," to complete and update these plans by January 1996. At a minimum, the plans should include initial notification procedures and identification of resources to be provided and actions to be taken by vessel operators and the community. But

first and foremost, they should identify jurisdictional authority and responsibility for fighting a ship fire at different locations and, to the extent possible, should prescribe the chain of command.

Therefore, the National Transportation Safety Board recommends that the U.S. Coast Guard:

> Develop, in coordination with the Texas Department of Public Safety, a fire fighting contingency plan for the Galveston Bay area that ensures a rapid response with adequate fire fighting resources to a major shipboard fire. (Class II, Priority Action) (M-94-46)
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> Review existing fire contingency plans for all U.S. ports to ensure that these plans are complete and up-to-date by January 1996 and that they include, at a minimum, initial notification procedures, jurisdictional authorities, and identification of resources to be provided and actions to be taken by the Coast Guard, vessel operators, and the community. (Class II, Priority Action) (M-94-47)
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> Develop policy and guidelines to be used by the Captains of the Port in facilitating agreements between vessel owners and marine salvage firms for contracting fire fighting services. (Class II, Priority Action) (M-94-48)

Also, the Safety Board issued Safety Recommendations M-94-49 and -50 to the OMI Bulk Management Company; M-94-51 to the National Fire Protection Association; and M-94-52 to the Texas Department of Public Safety.

The Safety Board is vitally interested in any action taken as a result of its safety recommendations. Therefore, it would appreciate a response from you regarding action taken or contemplated with respect to the recommendations in this letter. Please refer to Safety Recommendations M-94-46 through -48 in your reply. If you need additional information, you may call (202) 382-6860.

Chairman HALL and Members LAUBER and HAMMERSCHMIDT concurred in these recommendations.

By Jim Hall
Chairman