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Log M-376D

National Transportation Safety Board

Washington, D. C. 20594

Safety Recommendation

Date: December 3, 1991

In Reply Refer To: M-91-44

Honorable James J. Blanchard
Governor of Michigan
Post Office Box 30013
Lancing, Michigan 48909

On Sunday, September 16, 1990, the 392-foot-long U.S. tankship JUPITER was moored at the Total Petroleum, Inc., terminal (Total Petroleum) located on the Saginaw River in Bay City, Michigan, discharging a cargo of unleaded gasoline. While the JUPITER lay moored at Total Petroleum's pier, the 635-foot-long bulk carrier BUFFALO entered the Saginaw River en route to a bulk materials handling facility at Midland, Michigan, to discharge a cargo of coal. As the BUFFALO passed the JUPITER, the tankship broke away from its berth and its stern swung out into the river, rupturing the discharge hose to the pier and damaging the pipeline on the pier. Gasoline spilled on the pier and onto the deck of the JUPITER. The electrical cables to two motor-operated valves that closed off the pipelines at the end of the pier were torn apart, causing sparks that ignited the spilled gasoline. Fire spread to the deck of the JUPITER, causing a series of explosions in the cargo tanks that destroyed the entire midship section of the vessel. One crewmember died during abandonment of the vessel. The JUPITER, valued at $9 million, was declared a total loss and later sold for scrap.[1]

Within minutes of the first explosion, the JUPITER's master notified the Coast Guard of the accident and started to assemble the crewmembers on the stern of the vessel for a personnel check. Because the crew did not have the capability to extinguish the fire, the most expedient thing that the master could do was to quickly get the crew off the vessel in a safe manner. At the time, it was uncertain whether more explosions would follow. Considering the loss of pressure in the fixed foam extinguishing system, the master was prudent in ordering his crew off the vessel instead of staying aboard to fight the fire.

[1]For more detailed information, read Marine Accident Report--"Explosion and Fire Aboard U.S. Tankship JUPITER, Bay City, Michigan, September 16, 1990" (NTSB/MAR-91/04).

Despite the timely response of local fire and other emergency units, fire fighting efforts were not immediately effective because of the magnitude of the fire. Units from Coast Guard Station Saginaw River assisted in deploying the oil booms, and the Coast Guard District Commander provided the buoy tender BRAMBLE as a platform from which commercial fire fighters could work. Through their combined efforts, local firefighters, the Coast Guard, and a commercial fire fighting company extinguished the fire after it had burned for 2 1/2 days.

During a December 6 critique of the initial response held at the city hall of Bay City, participants agreed that they allowed the fire to burn because "there was no equipment or trained personnel to extinguish it." Although shipboard fires, in particular tankship fires, occur infrequently in the Bay City/Saginaw River area, the JUPITER accident highlighted the fact that local fire departments need specific training in fighting shipboard fires. The Bay City area does have a contingency plan, but the plan does not provide for training in shipboard fires or other marine catastrophes. The Safety Board has previously recommended that the Coast Guard integrate Coast Guard planning and training efforts with those of local authorities in developing port contingency plans that involve participation by the local waterfront facilities, the local fire and police departments, existing port authority agencies, and other disaster preparedness agencies. In 1985, as a result of a cruise ship fire in Port Canaveral, Florida, the Safety Board issued the following recommendation to the Coast Guard:

> M-85-29
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> Direct the Captain-of-the-Port, Jacksonville, Florida to participate in establishing a port contingency plan for Port Canaveral with the Canaveral Port Authority and local jurisdictions in the port community.

A similar recommendation was made to the Canaveral Port Authority. (M-85-36)

The recommendation to the Coast Guard has been incorporated in the Marine Safety Manual;[2] it directs the Captain-of-the-Port (COTP) to develop a fire fighting contingency plan that addresses fire fighting in each port in the COTP zone. The recommendation to the Canaveral Port Authority resulted in acquisition of and training in the use of emergency equipment in the port. Both recommendations have been classified "Closed--Acceptable Action." The Safety Board recommends that the Detroit Coast Guard COTP, who has responsibility for the Bay City/Saginaw River area, in cooperation with local authorities, develop a port contingency plan that includes shipboard fire fighting training and drills.

Therefore, the National Transportation Safety Board recommends that the State of Michigan:

> Direct the Michigan Department of State Police, Emergency Management Division, to amend the County Emergency Planning Workbook, dated November 1986, to include provisions for shipboard firefighting training and to include procedures for fighting shipboard fires in the State Contingency Plan. (Class II, Priority Action) (M-91-44)

2U.S. Coast Guard Marine Safety Manual, Volume VI, Chapter 8, Paragraph B.

Also, the Safety Board issued Safety Recommendations M-91-31 through -36 to the U.S. Coast Guard, M-91-37 and -38 to Cleveland Tankers, Inc., M-91-39 through -42 to Total Petroleum, Inc. ; M-91-43 to the Lake Carriers Association; and M-91-45 to the Bay County Emergency Services.

The National Transportation Safety Board is an independent Federal agency with the statutory responsibility "to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations" (Public Law 93-633). 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 recommendation in this letter. Please refer to Safety Recommendation M-91-44 in your reply.

KOLSTAD, Chairman, COUGHLIN, Vice Chairman, and LAUBER, HART and HAMMERSCHMIDT, Members, concurred in this recommendation.

By: James L. Kolstad
Chairman