

Log M-308C

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: JAN 15 1986

Forwarded to:
Mr. George Dreyer
President
Jacob Brothers, Inc.
P.O. Box 415
1240 Seaview Avenue
Bridgeport, Connecticut

SAFETY RECOMMENDATION(S)
M-85-124

About 2230 on November 17, 1984, the U.S. tug M/V CELTIC and the barge CAPE RACE, which was secured to the tug's starboard side, suddenly sank in Long Island Sound, Connecticut, resulting in the loss of both vessels and the loss of the tug's six-man crew. The tug and the barge, loaded with scrap iron, were en route from Bridgeport, Connecticut, to Port Newark, New Jersey, and were about 6 miles south of Norwalk, Connecticut, at the time of the accident. The value of the two vessels and cargo was estimated to be about \$500,000. ^{1/}

The most probable explanation of the sinking is that the CAPE RACE, which was loaded to a safe freeboard, sustained a hull failure resulting in an opening in the underwater hull. The barge probably took sufficient water forward to plunge the bow underwater, resulting in critical downflooding into the cargo compartment through holes in the coaming, and to sink bow first; as the barge sank it pulled the tug underwater with it.

The loading berth at the scrapyard did not afford sufficient depth to keep a loaded barge from grounding during low water. This situation caused the CELTIC to remain at the scrapyard on the day of the accident to wait for high water because one of the barges was aground. Soundings taken by the U.S. Coast Guard (USCG) during the investigation show an area in the berth near the shore that was 11.7 feet deep at mean low water. A small area of the bottom of the barge would be heavily aground at low water by the time the barge was loaded with enough scrap iron to produce a 12.6-foot draft. Since low water occasionally may be approximately 1.7 feet below mean low water, the minimum depth available would be about 10 feet. A barge being loaded would sometimes contact the bottom as its draft, due to loading, exceeded 10 feet. The unequal loading on the bottom of a loaded scrap barge, particularly one in poor structural condition such as the CAPE RACE, could result in seriously stressing or damaging the hull. The Safety Board believes that Jacob should limit the maximum draft of barges loaded at its facility until such time as the berth is dredged to provide a safe depth greater than the draft of barges at all conditions of low water.

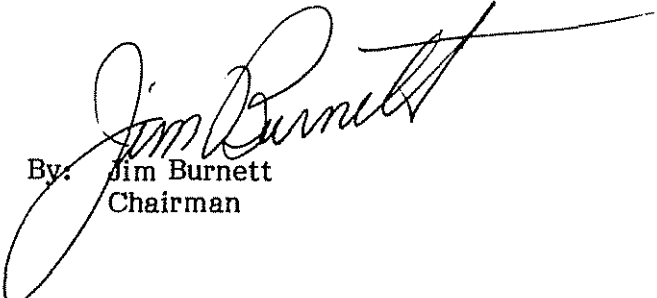
^{1/} For more detailed information, read Marine Accident Report--"Sinking of the U.S. Tug M/V CELTIC and Barge CAPE RACE, Long Island Sound, Connecticut, November 17, 1984" (NTSB/MAR-85/12).

Therefore, the National Transportation Safety Board recommends that Jacob Brothers, Inc.:

Limit the maximum draft of barges loaded at its loading berth at Bridgeport, Connecticut, to ensure that the barges do not ground at low water, until such time as the berth is dredged to provide a safe depth greater than the draft of barges at all conditions of low water. (Class II, Priority Action) (M-85-124)

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 actions taken as a result of its safety recommendations and 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-85-124 in your reply.

BURNETT, Chairman, GOLDMAN, Vice Chairman, and LAUBER, Member, concurred in this recommendation.


By: Jim Burnett
Chairman