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NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: JAN 15 1986

Forwarded to:

Mr. Carl Eklof President Island Park Tanker Corporation 1571 Richmond Terrace Staten Island, New York 10310

SAFETY RECOMMENDATION(S)

M-85-123

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.

It is possible that if the CELTIC's crew had known the dangerous condition of the CAPE RACE, they might have chosen to tow the barge on a hawser astern. Had the barge sunk while being towed astern, the hawser would have parted, a potentially dangerous event, but the tug would not have sunk. Also, they might have used the searchlight to detect any list or change in trim of the barge if they suspected a problem with the barge. This accident suggests, however, that the crew was caught by a sudden catastrophic event that they did not expect to happen, even though the earlier experience with the HERBERT E. SMITH should have made them aware that scrap barges could develop large leaks.

It is probable that the CELTIC's crew was diligent and had checked both barges, but detected nothing critically wrong with the CAPE RACE. A call to the tug's operator by the CELTIC's mate after getting underway from Bridgeport clearly indicated that nothing was known to be wrong. However, many scrap barges are old and in poor condition, and while careful inspection of them may considerably reduce the potential danger to

^{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).

the tug while towing such barges alongside or ahead, as is accepted practice for controlling a tow in confined waters, the possibility of a serious structural failure in a scrap barge is not remote. This accident demonstrates that even a barge which was recently drydocked for bottom repairs can suffer a hull failure. Even if the accident had happened in daylight, the crew still might not have had time to let go of the barge or for all crewmembers to escape from the tug, assuming that a very large hole developed through a massive structural failure.

The mate apparently recognized that something was wrong and had time to reverse the engines. If the CELTIC had been equipped with a means to release the towing lines to the CAPE RACE remotely from the pilothouse, the mate probably would have had time to release the barge and save the tug. The Safety Board recognizes that the use of quick-release devices may require that the towing lines be rigged differently and that it may be necessary to have a wire pendant connected to the end of each towing line, as was fitted on some of the CELTIC towing lines, in order to facilitate connecting the end of the towing line to the hook of the quick-release device. However, the Safety Board believes that towing vessels should be equipped with some means so that a tow can be released quickly and remotely from the pilothouse.

Therefore, the National Transportation Safety Board recommends that the Island Park Tanker Corporation:

Install quick-release devices on the tugs in its fleet that tow scrap barges so that the tow may be released quickly and remotely from the pilothouse. (Class II, Priority Action) (M-85-123)

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-85-123 in your reply.

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

y. Jim Burnett Chairman