National Transportation Safety Board
Washington, D.C. 20594

Safety Recommendation

Date: March 23, 1994

In Reply Refer To: M-94-6

Mr. Thomas A. Allegretti
President
American Waterways Operators, Inc.
1600 Wilson Boulevard, Suite 1000
Arlington, VA 22209

On January 6, 1994, at 2200, after loading about 35,000 barrels of No. 6 oil, the tank barge MORRIS J. BERMAN and the tug EMILY S departed from the Gulf Terminal in San Juan Bay, San Juan, Puerto Rico, en route to Antigua. At a projected speed of about 5 knots, the voyage was expected to last 2 1/2 days. Weather was clear, visibility was 10 miles, wind was from the northeast at 15 knots, and seas were southwesterly at 5 to 6 feet.

The MORRIS J. BERMAN, a conventional single-skin tank barge, measured 302 feet long, 90 feet wide, and 22 feet in depth, and had a capacity of approximately 70,000 barrels of oil. The EMILY S, a conventional oceangoing tug, measured 81 feet long, 28 feet wide, and 12 feet in depth. The tug was equipped with two 900-horsepower diesel engines, two propellers, and two rudders. It also had an auto-pilot steering system and modern navigation equipment, such as two loran sets, one GPS system, and two radars.

The EMILY S operating crew comprised two licensed operators, one able seaman, and one unlicensed engineer. Two tankermen, who were to offload the barge's cargo at Antigua, opted to ride on the MORRIS J. BERMAN during the trip and maintain contact with the EMILY S by means of a portable VHF radio.

At 2310, when the tow arrived at the San Juan Harbor sea buoy, the senior operator, who was standing watch on the EMILY S, had crewmembers pay out about 1,200 feet of the 1 1/2-inch diameter wire towline. When the tow was about 3 miles offshore, the operator turned the tow onto an easterly course toward Antigua.

The barge had been underway less than 2 hours when the towing cable parted. The operator stated that the tow seemed "to surge" forward. After awakening the alternate operator and the rest of the tug crew, he radioed the two tankermen on the barge. The crew retrieved the towline and found that it had parted about 50 feet from the barge's towing bridle. The operator turned the tug around and headed toward the barge. While the alternate operator maneuvered the tug and the engineer handled the towline winch controls, the operator and the seaman used five U-bolts to make a temporary "eye" in the end of the towline. About 0130 on January 7, 1994, after the MORRIS J. BERMAN was in tow again, the alternate operator relieved the operator on watch.

At 0300, on January 7, after learning of the towline separation, the towing company's general manager in San Juan telephoned the watchstander (alternate operator) to check on the towing situation. The alternate operator said that he looked aft, saw the red navigation side light on the MORRIS J. BERMAN, and told the manager that things were "fine."

About 0350, the tankermen on the MORRIS J. BERMAN were awakened by the sound of waves breaking on shore and the barge pounding in the surf. The tankermen saw no sign of the EMILY S. They attempted to radio the tug, but got no response. At 0357, the tankermen contacted the U.S. Coast Guard in San Juan to report that the barge had grounded and was leaking oil.

About 0400, the alternate operator noticed a surge in the tug's speed. He checked the radar and saw no indication of the barge, whereupon he woke the seaman to have him locate the barge. When they could not locate the MORRIS J. BERMAN, the seaman woke the operator. After the operator had the crew reel in the towline, he turned the EMILY S around and began to retrace the tug's trackline, searching for the missing barge. In the meantime, the Coast Guard radioed the tug regarding the lost tow. Between 0530 and 0600, the EMILY S located the barge in the surf, about 400 yards off the beach and 4 miles east of the entrance to San Juan Harbor.

As a result of being repeatedly pounded against the rocky beach area, the barge's single-skin hull suffered several breaches, causing about 1 million gallons of No. 6 oil to spill into the waters off San Juan. Cost estimates for the large-scale oil spill cleanup effort exceeded $100 million.

The Safety Board determined that the towboat's 6X22 towing cable,[1] which had been installed in November 1991, had parted previously less than 5 months before this accident, while the EMILY S was towing an empty barge from Guayanilla, Puerto Rico. When the line parted in August 1993, the crew made a five U-bolt temporary "eye" in the end of the towline during the voyage. They later spliced a permanent "eye" into the end of the towline when the vessels arrived at San Juan. When Safety Board investigators examined the towing cable after the January 1994 accident, they found that it was in poor condition, was heavily rusted, and contained many broken wires, or "fish hooks."

[1] The cable was 6X22 in construction; that is, the cable was composed of 6 strands, each of which contained 22 individual wires.

Currently, the U.S. Coast Guard has certificated 1, 544 tank barges to carry oil and bulk hazardous materials in ocean and coastwise service. Although the Coast Guard or Coast Guard-approved organizations must inspect cargo-handling gear on ships annually, no Federal regulations require that towing cables meet any standard or be inspected. The Coast Guard maintains no data on the frequency of towline breakage. The Safety Board believes that ensuring that the towlines of barges carrying oil and hazardous materials are in good and serviceable condition is paramount to towing safety and environmental protection.

As the MORRIS J. BERMAN grounding demonstrates, damage to barges carrying oil and hazardous materials can have a devastating impact on the environment and on coastal communities. The Safety Board, therefore, believes that a recognized organization or association approved by the Coast Guard should periodically certify the condition and suitability of towlines. However, because the promulgation of regulations is a lengthy process, the Safety Board further believes that an interim action pending the adoption of regulations is necessary.

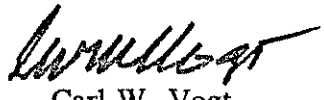
Therefore, the National Transportation Safety Board recommends that the American Waterways Operators, Inc.:

> Recommend to members that are engaged in ocean and coastwise towing of petroleum products or hazardous materials in bulk that they have their towlines periodically inspected and certified by a recognized organization. (Class II, Priority Action) (M-94-6)

Also, the Safety Board issued Safety Recommendation M-94-5 to the United States Coast Guard. If you need additional information, you may call Mr. Katcharian on (202) 382-6860.

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-94-6.

Chairman VOGT, Vice Chairman COUGHLIN, and Members LAUBER, HAMMERSCHMIDT, and HALL concurred in this recommendation.



By: Carl W. Vogt
Chairman