



National Transportation Safety Board

Washington, D. C. 20594

Safety Recommendation

Date: May 20, 1991

In Reply Refer To: M-91-19 through -21

Mr. Ken Derr
Chairman of the Board and
Chief Executive Officer
Chevron Corporation
225 Bush Street
San Francisco, California 94104

On Sunday, July 30, 1989, the liftboat M/V AVCO V was in the raised position in about 60 feet of water at Ship Shoal, Block 154, in the Gulf of Mexico with 3 crewmembers and 11 offshore workers aboard. Because of deteriorating weather and sea conditions caused by the development of hurricane Chantal in the gulf, the Chevron dispatcher at Leeville, Louisiana, recommended that the master bring the AVCO V into Leeville. About 0100 on Monday, July 31, the master had all persons on board assemble on deck wearing their life preservers while he lowered the liftboat. About 0230 the master headed the AVCO V northward toward the west end of Ship Shoal, intending to proceed around the west end and then eastward along the north side of the shoal to Leeville. While en route, except for the master and a deckhand, most on board slept.

While proceeding northward, the wind and the seas coming toward the vessel's starboard quarter increased in velocity and height, respectively. The vessel began taking water on deck in sufficient quantity to cause equipment stowed on the main deck to shift. About 0505 the AVCO V listed, capsized to port, and sank near the west end of Ship Shoal.¹

Chevron USA had a hurricane action plan concerning the action its facilities should take in the event of a hurricane in the Gulf of Mexico, but phase I of the plan was not put into effect at the Leeville base until after the AVCO V accident. Although the AVCO V was under charter to Chevron, the vessel was not provided with a copy of the plan. The plan specified that phase I should be implemented when weather forecasts indicate the possibility of a hurricane in the Gulf of Mexico within 48 hours, and the plan provided for action concerning liftboats to be taken by the Leeville base dispatcher's office. Although some elements of the Chevron

¹For more detailed information, read Marine Accident Report--"Capsizing and Sinking of the U.S. Liftboat M/V AVCO V, Gulf of Mexico, July 31, 1989" (NTSB/MAR-91/02)

hurricane action plan were being implemented on Sunday, July 30, in anticipation of the hurricane, phase I was not put into effect at the Leeville base until 0800, about 3 hours after the AVCO V capsized.

The AVCO V master was already aware on Friday, July 28, from weather reports that bad weather was predicted for Monday, July 31. Additionally, he radioed the Leeville base dispatcher at 1100 on Sunday, July 30, to determine if phase I of the hurricane action plan was being implemented, and he was advised it had not been. Furthermore, the Leeville base did not request the master to bring the AVCO V into Leeville until after midnight on July 30.

The AVCO V was one of two liftboats farthest from the base. The AVCO V had wave-height operating limitations and relatively slow speed, further decreased in rough seas. Therefore, it would have been advisable for the Leeville base to have either brought the AVCO V into port earlier or to have left it in position, evacuating all personnel from the vessel. The National Transportation Safety Board concludes that the Chevron Hurricane Action Plan needs to include consideration for the wave-height operating limitations of liftboats when the movement or evacuation of such vessels during deteriorating weather conditions is being decided.

This accident also reveals a need for a severe weather action plan on board liftboats that addresses the environmental operating limitations of the vessel. Had such a plan been aboard the AVCO V, the master would have been better informed and could have made a more supportable decision about whether to proceed into port under the prevailing and predicted weather conditions. Lacking such information for guidance, he relied on his experience and the information from the Leeville base dispatcher to make his decision. Although the master had reservations about proceeding to Leeville, he felt pressured to do so by those involved with the AVCO V's operations. The Safety Board believes that liftboats should have on board a severe weather action plan tailored to the operating characteristics and limitations of the individual vessel that will provide guidance to the master when making a determination whether to operate in predicted severe weather conditions.

The AVCO V could have remained and probably would have survived the storm at its location; however, it was unknown whether the tropical depression would develop into a hurricane, or what path the hurricane would take as it moved northward in the gulf. Because the Chevron employees were already concerned during the afternoon of July 30 that the tropical depression would develop into a hurricane, earlier action could have been taken by the Leeville base to have support vessels or helicopters remove the offshore workers and the crew from the AVCO V, as had been accomplished for two other liftboats. If the hurricane did not develop, the persons removed could readily have been returned. The Safety Board in its comments on the U.S. Coast Guard notice of proposed rulemaking (CGD 82-004 and CGD 86-074) concerning liftboats has expressed its opposition to the transporting of offshore workers on liftboats, except for the minimum number of such workers required to maintain contractor equipment on board. In this instance, had the number of offshore workers transported on the AVCO V been reduced, fewer persons would have perished in this accident.

Therefore, the National Transportation Safety Board recommends that Chevron USA:

Prepare and include in the Chevron Hurricane Action Plan a system that considers the sea and weather operating limitations of liftboats; use this system as guidance for evacuating personnel from such vessels or for releasing such vessels to seek shelter during predicted deteriorating weather. (Class II, Priority Action) (M-91-19)

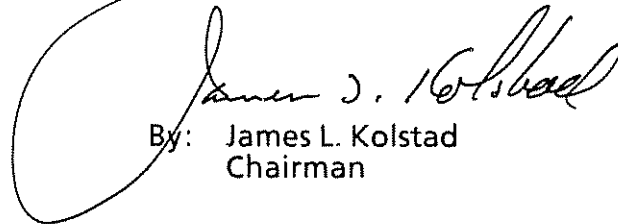
Require that owners of those liftboats chartered by Chevron provide information concerning sea and weather operating limitations of those vessel to enable informed decisions to be made for the evacuation of personnel from such vessels or for releasing such vessels to seek shelter in conjunction with hurricane and severe weather plans. (Class II, Priority Action) (M-91-20)

Limit the number of offshore workers transported on engaged liftboats between United States continental ports and offshore worksites to the minimum number required to maintain the contractor equipment carried on the vessel. (Class II, Priority Action) (M-91-21)

Also, as a result of its investigation, the Safety Board issued Safety Recommendations M-91-12 to the U.S. Department of Transportation; M-91-13 and -14 to the U.S. Coast Guard; and M-91-15 through -18 to Avis Bourg & Company, Inc. In addition, the Safety Board reiterated Safety Recommendations M-90-87 through -89, -91 through -93, -95, -97, and -98 to the U.S. Coast Guard.

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 recommendations in this letter. Please refer to Safety Recommendations M-91-19 through -21 in your reply.

KOLSTAD, Chairman, COUGHLIN, Vice Chairman, and BURNETT, LAUBER, and HART, Members, concurred in these recommendations.



By: James L. Kolstad
Chairman