

NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: April 17, 1979

 Forwarded to:
 Mr. H. Kelly
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 Ocean Drilling and Exploration Company
 P.O. Box 61780
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SAFETY RECOMMENDATION(S)
M-79-49

About 1100 c.s.t. on April 14, 1976, the self-elevating mobile offshore drilling unit OCEAN EXPRESS departed a drilling site near the Texas coast in the Gulf of Mexico under tow for a new drilling site about 33 nmi northeast. The OCEAN EXPRESS arrived at the new site about 2330, but was not set in place because of adverse seas. Three tugs held the OCEAN EXPRESS in position awaiting better weather, but the seas continued to increase. About 1530 on April 15, one tug became partially disabled because of a reduction gear failure. At 1930, another tug's towline broke. With only one effective tug remaining, the OCEAN EXPRESS turned broadside to the wind and seas, drifted, grounded, capsized, and sank about 2115. The vessel was valued at \$20 million. 1/

The bargemover was rescued by a Coast Guard helicopter. The crew abandoned the OCEAN EXPRESS in the unit's survival capsules. The 14 persons in one capsule were rescued without incident. The other capsule capsized with 20 persons inside; 7 persons escaped and 13 persons drowned.

The Safety Board's analysis of this accident indicated that the OCEAN EXPRESS' operating manual did not provide adequate guidance regarding the unit's stability characteristics, towing arrangements, severe weather operations, transit preparations, and operational limitations. The bargemover was not aware that the unit's stability was affected by the position of the mat. No provisions were made for towing emergencies, and the tugs were not repositioned after one tug's starboard reduction gear failed. When the OCEAN EXPRESS arrived at the new drilling site, the mat probably could have been set on the bottom and the platform jacked out of the water with minor damage to the columns, but the operating manual did not indicate the expected results of exceeding the design jacking limits. The OCEAN EXPRESS did not have on-board motion sensing and recording instruments, and the bargemover subjectively evaluated the sea state to determine when the jacking limits were approached.

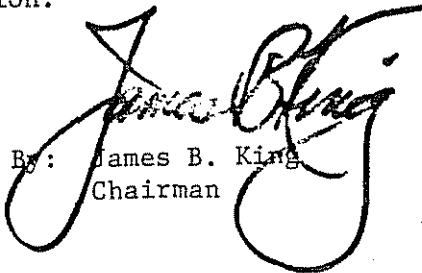
1/ For more detailed information read "Marine Accident Report - Capsizing and Sinking of the Self-Elevating Mobile Offshore Drilling Unit OCEAN EXPRESS near Port O'Connor, Texas, April 15, 1976" (NTSB-MAR-79-5).

As a result of its analysis of this accident, the National Transportation Safety Board recommends that the Ocean Drilling and Exploration Company:

Review and revise the operating manuals for its existing self-elevating mobile offshore drilling units to include guidance regarding:

1. The stability of the unit for the complete range of mat-platform separations;
2. the number of tugs and the horsepower required for towing the unit, and the recommended towing arrangements and equipment;
3. contingency plans for emergencies afloat, including towing mishaps and severe weather;
4. transit preparations, including an appropriate checklist;
5. the expected results of exceeding the design limits for jacking operations; and
6. the minimum wind speeds, sea conditions, and unit motions which would result in instability or structural failure. (Class II, Priority Action) (M-79-49)

KING, Chairman, DRIVER, Vice Chairman, McADAMS and HOGUE, Members, concurred in the above recommendation.


By: James B. King
Chairman