

LOG M-20 NOT: 614 M-71-849

- b. The apparent change in course to proceed into Morehead City, which created a following sea condition;
- c. The design of the vessel in regard to its freeboard, the area of the freeing ports, and the location of vents, without permanent closing devices on the weather deck where boarding seas could accumulate sufficiently to inundate the vents;
- d. The fact that all three generators were located at the same level in one engineroom, thereby greatly increasing the probability of losing all sources of power at the same time;
- e. The loss of electrical power as a result of partial flooding, which would have caused a loss of steerage and rendered the automatic electric bilge pump inoperative;
- f. The combination of adverse conditions which greatly increased the possibility that the operating personnel were unable to place the two emergency bilge pumps in operation;
- g. The fact that the door between the engineroom and the towing winch enclosure was routinely latched open while the tug was underway, thus exposing the engineroom to boarding seas.

#### RECOMMENDATIONS

The National Transportation Safety Board concurs in the recommendations of the Coast Guard Marine Board of Investigation. The Safety Board has previously recommended enactment of legislation which would require the licensing, by the Coast Guard, of all persons in charge of the navigation of towing vessels. This casualty is an additional example of the need for such legislation.

The Safety Board strongly supports the need for legislation which would provide for Coast Guard inspection of all offshore towing vessels. This casualty is only one of several which have occurred within the past 2 years, and further illustrates the need for safety regulations specifically directed to this type of vessel. There are inspection laws and regulations which provide safety standards and requirements pertaining to the construction, operation, and equipment of tank vessels, cargo vessels, and passenger vessels. Legislation is also needed to provide such appropriate standards for towing vessels in order to insure a greater degree of protection for these vessels and their crews.

In addition, the Safety Board recommends that:

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1. The Coast Guard, in its inspection of towing vessels, specifically analyze the casualties involving towing vessels operating on inland waters to determine whether there is a need for legislation requiring inspection of all towing vessels

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2. The Coast Guard, American Bureau of Shipping, and the organized ship design professions consider the usefulness of the fault tree or similar systems analysis technique as a predictor of potential failures and accidents, and as a guide to needed design requirements, during the design and plan approval stages of ship construction.


BY THE NATIONAL TRANSPORTATION SAFETY BOARD:


Adopted this 5th day of May, 1971:

  
John H. Reed, Chairman

  
Oscar M. Laurel, Member

  
Francis H. McAdams, Member

  
Louis M. Thayer, Member

  
Isabel A. Burgess, Member