



# National Transportation Safety Board

Washington, D.C. 20594  
Safety Recommendation

*Log M-324A*

**Date:** February 6, 1987

**In reply refer to:** M-87-12

Mr. James Nolan  
President, Marine Operations  
Sun Refining & Marketing, Inc.  
P.O. Box 2224  
Aston, Pennsylvania 19014

About 1030 on October 28, 1986, an explosion and fire occurred in the engineroom of the 811-foot-long U.S. tankship OMI YUKON which was en route from Honolulu, Hawaii, to Korea for a biennial inspection by the U.S. Coast Guard. At the time of the explosion, the tankship was located about 1,000 miles west of Honolulu in the Pacific Ocean and was not carrying any cargo. There were 24 crewmembers, 2 contracted U.S. welders, and 11 Japanese workers, employed in cleaning the cargo tanks, aboard the vessel. Four persons were killed; the other 33 persons safely abandoned the vessel and were later rescued by a Japanese fishing vessel. The estimated damage to the OMI YUKON was \$40 million. The vessel was towed to Japan where it was examined by National Transportation Safety Board investigators in January 1987.

The investigation of this accident has not been completed and the probable cause of the accident has not been determined. However, the examination of the OMI YUKON (Sun Shipbuilding Hull No. 660) indicated that the starboard fuel-oil storage tank had exploded causing massive damage to the engineroom; that there were several ignition sources in the area of the after vent for the starboard fuel-oil storage tank; that the after fuel-oil storage tank vent was not fitted with a flame screen as required by Coast Guard regulations (46 CFR 56.50-85(a)(7)); and that both after tanks were labeled as ballast tanks. The fuel-oil storage tanks on this class of tankship had been enlarged during construction by converting the after-wing ballast tanks into fuel-oil tanks and making the existing fuel-oil storage tanks common with the converted ballast tanks. The separate vents for the original ballast tanks were not removed and, in the case of the OMI YUKON, the labels on the after tanks were not changed.

The Safety Board has identified four other tankships constructed about the same time by the Sun Shipbuilding Company, Chester, Pennsylvania, that are similar to the OMI YUKON. The Safety Board is concerned that these four tankships may have a potential safety hazard with their fuel-oil storage tank vents similar to that which existed on the OMI YUKON. These tankships presently are operated by Trinidad Corporation and Sun Refining & Marketing, Inc.

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As a result of its investigation, the National Transportation Safety Board recommends that the Sun Refining & Marketing, Inc.:

Examine the fuel-oil storage tank vents on the AMERICA SUN to determine whether both vents on each fuel-oil storage tank are fitted with flame screens and are labeled properly; if not fitted with flame screens or labeled properly, make all necessary repairs for proper installation and labeling. (Class I, Urgent Action) (M-87-12)

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-87-12 in your reply.

Also as a result of its investigation, the Safety Board issued Safety Recommendation M-87-11 to the Trinidad Corporation.

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

  
By: Jim Burnett  
Chairman