

Hoping Harbor Pilot Boarding Major Marine Occurrence

Executive Summary

At approximately 1324 on 30 January 2020, the cement carrier Rui He, owned by Ta-Ho Maritime Corporation, registered at Port of Keelung, IMO No. 9491816 and gross tonnage 14,233, rendezvoused at the pilot station of Hoping Harbor with the tugboat Hegang No. 2, owned by Hoping Harbor Development Co., Ltd. and managed by Ta-Ho Maritime Corporation, Official No. 013633 and gross tonnage 400. At approximately 1326, during the occurrence pilot's boarding of Rui He via the pilot ladder, the pilot's leg was crushed by the extension platform of Hegang No. 2, resulting in injuries. No environmental pollution occurred.

In accordance with the Transportation Occurrence Investigation Act, Taiwan, and the definition of major transportation occurrences specified therein, the Taiwan Transportation Safety Board was the independent agency in charge of investigating the marine accident. The organizations and agencies invited to participate in the investigation included the Maritime and Port Bureau of the Ministry of Transportation and Communications, Hoping Industrial Harbor Management Group, Industrial Development Bureau, Ministry of Economic Affairs, Hoping Harbor Development Co., Ltd., Ta-Ho Maritime Corporation and Hoping Harbor Pilot Office.

After comprehensive investigation and analysis of the factual data, a total of 8 findings and 7 safety recommendations were obtained.

The findings related to probable causes are as follows:

1. The unsafe pilot boarding operation and the resulting injuries to the

occurrence pilot involved multiple contributing factors, including improper command by the pilot before boarding, inappropriate swell-shielding measures adopted by the master of Rui He, inadequate communication between the master and the pilot, and the failure of Rui He to maintain the original inbound heading of 010 degrees. These factors caused the vessel's bow heading to form a 90-degree angle with the direction of the swell, resulting in severe rolling of the pilot boat and creating hazardous conditions that made pilot boarding difficult.

2. Due to natural environmental conditions affecting Hoping Harbor, the use of a tugboat as a substitute pilot boat under adverse meteorological and sea conditions posed a high operational risk.
3. The occurrence pilot did not conduct a risk assessment before the pilot boarding operation and failed to follow internationally accepted pilot boarding practices, contributing to the occurrence.
4. There was a conflict between the fairway monitoring responsibilities of the Hoping Harbor signal station and the pilotage practices employed by the pilots. The inbound vessel, the signal station, and the pilot all failed to adequately consider navigational safety, resulting in isolated pilotage practices and monitoring blind spots at the signal station.

The findings related to risk are as follows:

1. The port operator and the competent authority responsible for pilot administration failed to adequately fulfill their supervisory responsibilities and did not implement proactive and effective management measures to improve the safety of dedicated pilot boat transfer operations.
2. The maritime administration authority did not propose improvement

measures regarding pilot safety issues, such as maintaining pilot boat integrity and protecting pilot safety, in order to ensure the safety of port fairways and navigation.

3. During the previous nine years, nine occurrences involving pilot injuries or fatalities occurred while pilots were performing pilotage duties in Taiwan. The long-standing high-risk nature of pilot operations continued to exist, while Taiwan's pilotage regulations still lacked review and explicit safety standards for pilot boats.

The other finding is as follows:

1. In 2003, the Industrial Development Bureau of the Ministry of Economic Affairs approved the "Hoping Industrial Harbor Operation and Management Plan," which stated that tugboats among the port service craft could also serve as pilot boats. In view of pilot safety concerns and changes in operational circumstances over time, there is a need to re-examine this arrangement.

Safety Recommendations

To Hoping Harbor Pilot Office

1. Establish a risk assessment and management mechanism for substitute vessels used as pilot boats in accordance with Article 8 of the Pilotage Regulations.
2. Coordinate with the Hoping Industrial Harbor Management Group, Industrial Development Bureau, Ministry of Economic Affairs to establish procedures prohibiting pilots from boarding vessels within the main fairway when tugboats are used as substitute pilot boats, in order to ensure pilot safety.

3. Enhance pilots' risk awareness, establish effective communication with the signal station, enter the main fairway in accordance with regulations, and comply with international pilot boarding and disembarkation procedures.

To Hoping Harbor Development Co., Ltd.

1. Confirm that the pilot station indicated on nautical charts represents the starting point of pilotage for the main fairway, and that vessels entering the fairway shall follow navigational guidance issued by the signal station after entering the navigation channel.

To Hoping Industrial Harbor Management Group, Industrial Development Bureau, Ministry of Economic Affairs

1. Supervise Hoping Harbor in establishing procedures requiring pilots, under adverse sea conditions, to board vessels in open waters outside the pilot boarding position before the vessel approaches the entrance of the main fairway.

To Maritime and Port Bureau of the Ministry of Transportation and Communications

1. In accordance with Article 8 of the Pilotage Regulations, develop standards and guidance for dedicated pilot boats, supervise pilot offices in establishing pilot boat risk assessment and management mechanisms, and strengthen lifesaving arrangements for man-overboard situations to ensure the safety of pilot boat operations and pilot boarding /disembarkation activities.

Note: The final report of this occurrence investigation is published in Chinese. To facilitate understanding for non-Chinese readers, the Executive Summary has been translated into English. While every effort has been made to ensure accuracy, discrepancies may occur. In the event of any inconsistency, the Chinese version shall prevail.