

Passenger Ship Uranus Major Marine Occurrence

Executive Summary

At 1530 on 21 August 2019, the passenger ship Uranus, operated by Tsang Jai Shipping Co., Ltd., departed Nanliao Fishing Harbor, Green Island, carrying 267 passengers on a scheduled voyage to Fugang Fishing Port, Taitung.

At 1531, when Uranus was approximately 1 nautical mile outside the harbor breakwater, a hydraulic oil pipe connected to the starboard engine ruptured, causing loss of propulsion of the starboard engine. At 1533, a lubricating oil gasket above the reduction gearbox of the port engine failed, resulting in complete loss of lubricating oil and rendering the port engine inoperable.

At 1610, the Eastern Marine Center of the Maritime and Port Bureau, Ministry of Transportation and Communications, received notification of the occurrence and informed the Green Island Inspection Office of the Coast Guard Administration, Ocean Affairs Council, to confirm that Uranus had suffered failure of both engines approximately 2.5 nautical miles off Nanliao Fishing Harbor.

At 1632, the Eastern Marine Center confirmed with the master of Uranus that both main engines had failed and arranged for the ship to be towed back to Nanliao Fishing Harbor for passenger disembarkation. At 1644, the Fifteenth Coast Guard Flotilla of the Coast Guard Administration arrived on scene to provide escort and safety assistance.

At 1732, Uranus was towed by Kai Shiuan No. 2 back to Nanliao Fishing Harbor and completed berthing safely. All persons on board were safe.

In accordance with the Transportation Occurrence Investigation Act of

Taiwan and the relevant provisions of the Casualty Investigation Code of the International Maritime Organization, the Taiwan Transportation Safety Board (TTSB) was the independent agency responsible for conducting this marine occurrence investigation. The organizations and agencies invited to participate in the investigation included the Maritime and Port Bureau of the Ministry of Transportation and Communications and Tsang Jai Shipping Co., Ltd. This investigation report was approved by the 14th Board Meeting of the TTSB on 7 August 2020 and subsequently published.

After comprehensive investigation and analysis of the factual data, a total of 4 findings and 4 safety recommendations were obtained.

The investigation identified 4 findings:

1. Excessive outlet pressure from the hydraulic oil pump of the starboard engine on board the passenger ship Uranus caused hydraulic oil to return to the oil tank through the pressure relief valve, resulting in excessive oil temperature within the tank. The excessive temperature subsequently caused the glass oil level gauge to rupture.
2. Tsang Jai Shipping Co., Ltd. did not establish a periodic maintenance and servicing system, resulting in hydraulic oil pipe leakage and gasket damage, which led to failure of both propulsion systems and loss of propulsion on board Uranus.
3. Although the safety management manual of Uranus included emergency response procedures, the procedures did not specify ship-shore emergency response drills for the company's emergency response mechanism during emergency situations.
4. The periodic inspection reports provided by the Maritime and Port Bureau did not include inspection checklists, making it impossible to verify whether

all required inspection items had been properly carried out.

Safety Recommendations

To Tsang Jai Shipping Co., Ltd.

1. Implement the Regulations Governing the Management of Ship Safety Operations and Prevention of Pollution to ensure that the maintenance and servicing of equipment on board Uranus comply with applicable inspection standards, and strengthen ship-to-shore emergency drill arrangements for the company's emergency response mechanism during emergency situations.

To Ocean Grow International Shipmanagement Consultant Corp.

1. Implement the Regulations Governing the Management of Ship Safety Operations and Prevention of Pollution to ensure that the maintenance and servicing of equipment on board Uranus comply with applicable inspection standards, and strengthen ship-to-shore emergency drill arrangements for the company's emergency response mechanism during emergency situations.

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

1. Implement the requirements of the Ship Inspection Rules and establish systems and complete records to ensure that inspected ships comply with seaworthiness standards.
2. Strengthen evaluations of the safety management and pollution prevention systems of offshore island passenger ships in order to fulfill the objectives of safe operation of ships and emergency preparedness under the safety management system.

Safety Actions Taken

Following the occurrence, under the supervision of the Maritime and Port Bureau, Uranus established procedures and documentation for main engine maintenance and machinery failure emergency response, conducted relevant drills, and strengthened crew education and training to familiarize personnel with operational procedures.

On 14 May 2020, Uranus passed evaluation, review, and approval by the Maritime and Port Bureau and was determined to comply with the Regulations Governing the Management of Ship Safety Operations and Prevention of Pollution. A Safety Management Certificate was subsequently issued for the ship.

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.