Entry into Enclosed Space

To: Shipowners, Ship Managers, Ship Operators, Masters, Officers and Crew of Hong Kong registered ships and Classification Societies

Summary

Two similar accidents occurred recently on board two Hong Kong registered chemical tankers causing death of a Chief Officer and a Bosun respectively inside enclosed spaces. This Note draws the attention of the Shipowners, Ship Managers, Ship Operators, Masters, Officers and Crew of Hong Kong registered ships and Classification Societies the important lessons learnt from these accidents.

The Incidents

1. After the chemical tanker departed the discharge port, crewmembers started cleaning cargo tanks. Upon completion of tank washing, the bosun informed the chief officer that odour came from a cargo tank. The chief officer entered into the cargo tank, but he did not inform other crewmembers nor follow the permit-to-work system before entry. He was later found unconscious inside the cargo tank and was rescued by crewmembers who entered inside the cargo tank despite oxygen level was still low. The chief officer died of asphyxiation.

2. In another accident, the chemical tanker was berthed preparing for loading of propylene oxide, which required all cargo tanks, ballast tanks and cofferdams to be filled up with nitrogen before loading. The bosun was discharging water from ballast tanks and he reported to the chief officer that nitrogen had been charging into all ballast tanks except the No.1 cofferdam and the cargo pump room. A few minutes later, the chief officer could not contact him by radio. After searching, the bosun was found lying inside the No.1 cofferdam. He was rescued by crewmembers who entered into the cofferdam despite oxygen level inside was low. The bosun was certified dead in the hospital. He did not inform other crewmembers before entering into the cofferdam nor follow the permit-to-work system before entry.
3. The reports of investigation into the accidents conducted by the Australia Transport Safety Bureau and Hong Kong Marine Department respectively can be found in their websites.

**Lessons Learnt**

4. The most important lessons learnt from these accidents are:
   - the safety awareness of crew about the danger in entering into enclosed spaces should be refreshed regularly through briefing and training sessions, emphasizing on the importance to strictly comply with the permit to work system;
   - the effective implementation of the permit-to-work system for entering into enclosed spaces on board should be closely monitored through reviews and audits by ship management and classification societies; and
   - the ship management company are strongly recommended to include safety drills for the rescue of injured persons from enclosed spaces so as to enhance crew competence in the operation; and review on the adequacy of safety equipment and crew training.

5. The attention of shipowners, ship managers, ship operators, masters, officers and crew of Hong Kong registered ships and Classification Societies is drawn to the lessons learnt above.

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