



香 港 商 船 資 訊

HONG KONG MERCHANT SHIPPING INFORMATION NOTE

A fatal electrocution accident happened on board while cleaning cargo hold

To : Shipowners, Ship Managers, Ship Operators, Masters, Officers and Crew

Summary

A fatal electrocution accident happened on board a Hong Kong registered bulk carrier during cargo hold cleaning when she was drifting off the coast of Veracruz, Mexico. At the time of the incident, three deck crew members, including one able seaman (*the AB*), were conducting a cleaning operation in the cargo hold using a portable cargo hold light for illumination. When the AB attempted to move the light by hand to illuminate the bilge well, he collapsed on the tank top due to an electric shock, resulting in his death. This Note draws the attention of shipowners, ship managers, ship operators, masters, officers, and crew to the lessons learnt from this accident.

The Incident

1. A Hong Kong registered bulk carrier (*the vessel*) drifted off the coast of Veracruz, Mexico, to conduct the cargo hold cleaning for the next loading of steel cargoes. Three deck crew members, including *the AB*, entered the No.1 cargo hold (*the hold*) to clean the tank top. As it was getting dark, a portable cargo hold light (*the light*) was temporary provided to the crew in *the hold* for illumination. When *the AB* attempted to move *the light* by hand to illuminate the starboard bilge well of *the hold* and check the cleanliness there, he suddenly collapsed on the tank top due to an electric shock. The crew of *the vessel* organised themselves immediately and applied first aid to *the AB*. *The vessel* was steered back to the designated rendezvous position to seek urgent shore medical treatment. Unfortunately, *the AB* was declared dead later by the shore doctor.

2. The investigation identified that the contributory factors leading to the incident were that the crew failed to follow the requirements of the “Code of Safe Working Practices for Merchant Seafarers” (*the Code*) to use a portable lamp with low voltage or take suitable

precautions to avoid electric shock in damp or humid conditions; failed to follow the requirements of *the Code* and the shipboard safety management system (SMS) to hold a toolbox meeting properly, including a risk assessment before cargo holds cleaning; lacked safety awareness on prevention of electric shock when using a portable cargo hold light; and the shipboard SMS failed to identify using electrical equipment as one of the main risks onboard *the vessel* when working in cargo holds.

Lessons Learnt

3. In order to avoid recurrence of similar accidents during operations in the future, the ship management company, all masters, officers, and crew members should note items (a) to (c) while ship management company should also note items (d) and (e):

- (a) strictly follow the relevant requirements of *the Code* to use a portable lamp with low voltage or take suitable precautions to avoid electric shock in damp or humid conditions;
- (b) strictly follow *the* requirements of *the Code* and the shipboard SMS to convene a toolbox meeting properly, including a risk assessment before the cargo hold cleaning;
- (c) enhance safety awareness of the crew on prevention of electric shock when using a portable cargo hold light;
- (d) ensure the crew strictly follow the safety requirements when working in cargo holds; and
- (e) ensure shipboard SMS to identify the risk of using electrical equipment when working in cargo holds as one of the main risks onboard.

4. The attention of shipowners, ship managers, ship operators, masters, officers, and crew is drawn to the lessons learnt above.