

Safety Bulletin

**Lessons Learned & Safety Recommendations
From Typical Marine Cases**

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NOTE

This Bulletin is written to identify the safety-related factors detected in Marine Accident Investigation, and finally lift safety awareness and safety management level of all marine-related parties, but not to attribute or apportion liability or blame.

1. Accidents Cause Analysis and Safety Warnings.

1.1 Human error is still as a major factor contributing to marine accidents from the general analysis to the maritime accidents in 2010.

Human error continues to be a major factor contributing to a great number of accidents investigated and concluded by China MSA, when the insufficiency of safety awareness, obligation awareness and the awareness to strictly follow the *1972 International Regulations for Preventing Collisions at Sea* of crews were found to be the main causes of a great many very serious accidents.

Special safety warnings for masters, deck officers and ship managers:

(1) The ship deck officers shall keep high alertness during duty time, take appropriate collision avoiding action substantially in ample time, especially with fishing vessels, not presumably make a subjective judgement the collision may luckily be avoided in collision avoidance in close distance, where may have big possibility of incompatible actions by both sides and result in collisions. Preserving shipping safety normally beginning with every safe operating minute details, the ship deck officers are

directly responsible for ensuring the safety of their ships. Every slip, negligence or insufficient duty performance may cause serious loss of life or property.

Deck officers are kindly advised to use manual steering and keep strengthened watchkeeping when navigating in coastal intensive fishing fields.

(2) The ship masters shall maintain proper responsibility in supervising and auditing his deck officers, and evaluate whether they have the potentially appropriate performances in taking proper collision avoiding action in ample time and substantially, strictly following the 1972 International Regulations for Preventing Collisions at Sea. The masters are advised to show on the bridge when navigating in restricted-visibility area with properly using fog whistle, standby main engine and keeping free communication. The ship master is positioned at the front line of ship safety management, as the first direct responsible person for ship safety. The sufficient supervision and management by ship masters play key roles in ensuring ship's safety.

(3) Shipping company shall review the operation records on board ships periodically, audit the safety supervision performance of master, and evaluate the master's competence and safety

management ability; give the master full authorities to change incompetent crews, and to refuse sailing unless the ship is seaworthy.

1.2 The shipping safety of fine ore or wet ore needs improvement.

The crews' safety awareness regarding carriage of fine ore or wet ore is insufficient. They lack of good understanding of the characteristics of fine ore or wet ore, while the emergency reaction is improper when the ship lists. These elements have already caused several capsizing of ships, with many fatalities, including 4 masters.

Special safety warnings for masters and ship operators:

(1)Masters shall attach great importance to safe carriage of fine ore or wet ore, stringently control the moisture content of cargo to be loaded onboard. During voyage, the vessel carrying with such cargoes shall be avoided heavy abeam wave impact or changing course abruptly. If ships suffering long time of swing, the crew shall patrol and inspect the state of cargo frequently to judge whether the cargo has been liquefied or not, and choose to drop anchor nearby if possible or sail against wind and prepare for emergency action early if the cargo being liquefied substantially and moving. Several accidents occurred as some ships tried to level the ship list by

adjusting ballast water, which only accelerated the capsizing.

(2) The ship operators shall put safety first, carrying unsafety-qualified cargo directly threatens the safety of crews and ships, and the master shall have the full authority to refuse carrying such cargo; if the operators take disguised harmful action against master because of his righteous decision, the qualification of the company shall be reviewed rigorously. The operators shall learn timely the characteristics of the cargo that is to be loaded onboard, urge the shippers to provide truth-telling certificate of cargo features, and urge the masters to stringently control the moisture content of the cargo no more than the regulated level.

1.3 Inland river vessels sail onto sea illegally resulting in several major capsizing and fatality accidents

The inland river vessels sailing beyond their permitted navigation area, lack of sea sailing competent crew, crew's willingness and ships' equipments to receive weather forecast report, sufficiently strong hull to withstand the strong sea wind and wave, and proper hatch cover, in contrast to the sea going vessels directly led to the sinking of several tens of vessels carrying with sands and rocks at sea, caused loss of many people, some accidents occurred with no survivors, which posed great difficulty to

investigation.

Special safety warnings for Inland River Ship companies and their administrators:

(1)The top managements of the inland river ship companies, being aware of the danger of their ships when sailing at sea, allow or even instruct their ships sail to sea illegally and riskily. Their acts violated the relevant National Production Safety Law, and are to be accused for their criminal liabilities for capsizing and fatality accidents happened.

(2)The administrative agents of inland river ship companies shall review the companies' operating qualification, once discover the illegal operation, such as inland river ships sailing beyond its permitted area onto the sea, shall take administrative actions timely against the companies, stop the illegal operation, and even cancel the companies' Operation Certificates if necessary.

2. Safety Warnings from safety investigation

(1) On December 9th 2010, Panamanian *HONG WEI* sank in the area near the Taiwan Island on her way from Kolonedale, Indonesia, to Shangdong, China, carrying 48900 tons of nickel ore, 10 people went missing. The safety investigation revealed that the plastic buckles of lifejackets used by the crews failed upon the

crews' body impacting the water as they jumped into sea, this led to the failure of lifejackets which dropped off from crews, failing to perform life protection, and was suspected as the reason of loss of people in some other accidents.

(2) The safety investigations into the above 3 accidents of nickel ore carrying ships revealed that some liferafts were blown away as soon as they were released into water, failed to perform lifesaving function. This has something to do with the improperness of crews' releasing operation and the strength of liferaft rope, and should make seafarers training institutes, liferaft survey organizations, and safety administrators to be deeply aware of these risks and importance. The investigations also identified the difficulty of uprighting the liferaft under the rough sea conditions.