

## LIFERAFT OPERATING PROCEDURE AS A SAFETY SUPPORT FOR CREWS ON MV MULYA SENTOSA II

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### ABSTRACT

Liferaft is a boat-shaped safety device carried onboard which is equipped with a canopy and survival kits for an emergency situation. This research applied the descriptive method, applied a random sampling technique whose samples were taken from crew of MV Mulya Santosa II. It was aimed to determine (1) causative factors leading to crews' low understanding of liferaft operating procedures on MV Mulya Sentosa II and (2) the impact of crews' low understanding of liferaft operating procedure on MV Mulya Sentosa II, and also (3) to determine any action which could be done to optimize the liferaft utility in MV Mulya Sentosa II in times of emergency (abandoning ship). The research found that there were some factors leading to the crews' low understanding of liferaft operating procedure on MV Mulya Sentosa II, including the lack of emergency drills, the absence of written information about liferaft operating procedure on board, and Deck Officer's low responsibility on performing emergency drills. Some efforts to overcome this situation included implementing emergency drill on board in accordance with the established requirements or guidelines, applying strict sanctions to any Deck Officer who did not implement emergency drills, and having a clear, effective, written information about liferaft operating procedure in place for all the crews to see.

Keywords: optimization, liferaft, safety.

### 1. Introducing

Vessel is defined as a sea transport manned by a captain as the leader, chief engineers as the head of engine room, officers on watch, and crews. While sailing to a predetermined route, bad situations, such as rough weather, storms, etc., can possibly happen, leading to an accident or an emergency situation.

There are some causative factors contributing in an accident onboard. They include mechanical tools, environment, and human. To prevent it from happening, such factors need to be eliminated. Based on NTSC mapping data (The Characteristics of Ship Accidents in Indonesian Waters Based on Investigations) in 2007 to 2014, it was found that 90% of ship accidents were caused by human error.

In fact, 75%-79% of human errors were caused by poor care management systems. The government and some international organizations such as IMO (International Maritime Organization) and ILO (International Labor

Organization) have urged all shipping companies:

a) to determine the factors leading to a low of understanding of safety equipment procedures, especially liferaft launching on MV Mulya Sentosa II, b) to identify the impacts of the crews' low understanding of liferaft operating procedure on MV Mulya Sentosa II, c) to determine any action which could be done to optimize the liferaft utility in MV Mulya Sentosa II in times of emergency (abandoning ship).

Related to this research, the researcher used some previous studies on the same research topic to support this current research. Ahmad Faisal Watoni (2019) investigated on lifeboat maintenance optimization as the crews' safety support on MV Sendang Mas. It was a descriptive qualitative research which applied an analysis technique to identify the dangers and risks contained in a system in a thorough and structured way. The research concluded that the lack of spare parts became a factor leading to a less optimal performance of lifeboat on MV Sendang Mas.

Besides, the fact that PMS (Plan Maintenance System) was not properly implemented in accordance with the provisions and the low responsibility of the deck officers in maintaining the lifeboat also played a role.

Samsul Bakhri (2019) conducted a research on the maintenance optimization of a totally-enclosed-space lifeboat for safety on MV HL Saijo. It was a qualitative descriptive research, using fishbone analysis method to turn research data into information which could be used to draw a conclusion. The research concluded that the factor leading to a less optimal performance of lifeboat on MV HL Saijo was the crews' lack of knowledge in performing the lifeboat maintenance, the inappropriate maintenance procedures, the unavailability of spare parts on board, rainfall, and waves. Some actions which could be done to overcome these problems included performing a periodic inspection on davits, providing adequate spare parts and tools, turning on all of the lifeboat engine for 3 minutes or more. All lifeboats needed to be left loose on board to allow a thorough inspection. This inspection needs to be performed once a month according to PMS (Planned Maintenance System) procedure. The launching units also needed to be maintained at least once a year.

The similarity of this research with the previous researches was in the topic of discussion, crew safety, analyzed using a qualitative approach whose data were obtained through observation and interviews.

However, this research differed from the previous researches in terms of research object. Research on MV Sendang Mas focused on lifeboat maintenance to support the crews' safety; research on HL Saijo focused on the maintenance of the totally-enclosed-space lifeboat; while this research focused on liferaft as a supporting unit to crews' safety in MV Mulya Sentosa II.

## 2. Research Methodology

This research was a descriptive qualitative study and took crew MV Mulya Sentosa II as the research subject. This study was descriptive research aimed to identify some facts of an object using a proper interpretation, random simple collection method (Sedarmayanti & Hidayat, 2011). The research object was the liferaft operating procedures performed by the crews on MV Mulya Sentosa II. The primary data were taken from interviews and direct observation on crews on MV Mulya Sentosa II specifically 10 person for deck crews. The secondary data were

obtained through documentation and literature study on printed media and internet, as well as field notes. The data collecting method included interviews to the deck crews on MV Mulya Sentosa II who were responsible for safety equipments, one of which was liferaft. The data analysis technique included: a) data collection, b) data reduction, and c) drawing conclusion.

## 3. Result and Discussion

There were some factors leading to the crews' low understanding of liferaft operating procedure on MV Mulya Sentosa II. During an emergency situation on board, some safety equipments could be used. One of them was liferaft, a crucial safety equipment for crews in the event of sinking, grounding, and catching fire. However, according to the interview with Chief Officer III of MV Mulya Sentosa II, the deck crews' low understanding of liferaft operating procedure were caused by several factors. MV Mulya Sentosa II had seven liferafts, three liferafts with maximum capacity of 20 people, two liferafts with maximum capacity of 15 people, a liferaft with maximum capacity of 25 people, and a liferaft with capacity of 65 people. All liferafts have been certified by the Head of Harbormaster Office and Port Authority Class II Pontianak. On September 20, 2021, a service on the liferafts had been scheduled, the service was only performed to 3 out of 7 liferafts. It was caused by the the assumption that the three liferaft were able to accommodate all crews on MV Mulya Sentosa II in case of emergency. The deck crews' understanding regarding to liferaft operating procedures was low since one of the vessels, MV Mulya Sentosa I, had docked and MV Mulya Sentosa II was the only vessel performing operation with a very busy sailing schedule. Thus, drills on how to operate safety tools, such as liferafts, were not able to be proceeded. Besides, the absence of written information about operating procedure of liferaft in place for all the crews, especially deck crews, to see was also one of the factors leading to the deck crews' low understanding.

There were some impacts risen if the deck crews had no knowledge on liferaft operating procedure on MV Mulya Sentosa II. As one of safety equipments, liferafts played an important role during emergency situations on board. Thus, the deck crews' low understanding of liferaft operating procedure would definitely give impacts on the crews' safety. Chief Officer III of MV Mulya Sentosa II stated that crews low understanding of liferaft operating procedure

would endanger crews' safety during emergency situations such as catching fire, grounding, or sinking. He added that the crews' low understanding would also affect their career as they were not able to optimally operate safety equipments during emergency situations.

Based on the interview with the Chief Officer II of MV Mulya Sentosa II, it was found that there were some factors leading to the crews' low understanding of liferaft operating procedure on MV Mulya Sentosa II, including the absence of emergency drills on safety equipments, especially liferaft, and the absence of written information on board on how to properly operate the liferaft. Based on the interview and observation, it was concluded that the officer responsibility in implementing emergency drills on MV Mulya Sentosa II was low. It was also found that other factor leading to the low understanding was the busy schedule of MV Mulya Sentosa as they had no time to perform the emergency drills.

There were some impacts caused by the crews' low understanding of liferaft operating procedure on MV Mulya Sentosa II. Based on the interview to the Chief Officer III on MV Mulya Sentosa II, there were some factors leading to the crews' low understanding of liferaft operating procedure as one of safety equipments on MV Mulya Sentosa II for emergency situations. The Chief Officer also explained the impacts of the low understanding, such as jeopardizing the crews' safety on MV Mulya Sentosa during emergency situations: sinking, grounding, and catching fire. Beside, this problem would also harm the crews' career in the company. Liferaft as one of safety equipments could not be optimally utilized during emergency situations since there was not written information about how to properly operate a liferaft and there were not any emergency drills for that on MV Mulya Sentosa II.

There were various actions which could be performed to optimally utilize the liferaft on MV Mulya Sentosa II. Based on the interview to the Chief Officer III on MV Mulya Sentosa II, one of the actions which could be performed to minimize this problem was implementing emergency drills on MV Mulya Sentosa II in accordance with the provisions or guidelines that had been set. Besides, there would be sanction to the vessel owner, the responsible chief officer and master given by the classification bureau if emergency drills were not implemented. The writer personally believed that the deck officer's responsibility to the crews' safety was rather low. A written information about the liferaft operating

procedure in place for all crews to see should be provided on MV Mulya Sentosa II.

#### 4. Conclusion

There were some factors leading to the crews' low understanding of liferaft operating procedure on MV Mulya Sentosa II, including: a) the absence of written information about how to properly operate liferafts in place on board, b) the improper implementation of the Plan Maintenance System (PMS), and c) the low responsibility of deck officer in performing emergency drills on board.

There were some effects which were caused by the crews' low understanding of liferaft operating procedure on MV Mulya Sentosa II, including: a) the safety hazards for the crews, b) undeveloped crews' career in the company, and c) insufficient utilization of safety equipments during emergency situations on board.

There were some actions which could be implemented to increase the crews' understanding of liferaft operating procedure on MV Mulya Sentosa II, including: a) implementing emergency drills on MV Mulya Sentosa II in accordance with the established provision and guidance, b) giving a sanction to any deck officer if emergency drills were not implemented, c) providing a written information about how to properly operate liferafts in place for all crews to see, and d) applying the Plan Maintenance System (PMS) in accordance with the provision and guidance.

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