



## Safety Management System Implementation on Ship in Shipping Companies in Banjarmasin

Wildani Khotami <sup>1</sup>, Imam Suharto <sup>2</sup>, Erna Herliani <sup>3</sup>, Yeffriansjah Salim <sup>4</sup>, Gurnari Courtney <sup>5</sup>

<sup>1</sup> Akademi Maritim Nusantara Banjarmasin, Indonesia

<sup>2</sup> Universitas Lambung Mangkurat, Indonesia

<sup>3</sup> Akademi Sekretaris Manajemen Indonesia Citra Nusantara, Indonesia

<sup>4</sup> Sekolah Tinggi Manajemen Informatika dan Komputer Indonesia Banjarmasin, Indonesia

<sup>5</sup> College of Science and Technology, Mauritania

**Corresponding Author:** Wildani Khotani, E-mail; [wildanikhotami@amnus-bjm.ac.id](mailto:wildanikhotami@amnus-bjm.ac.id)

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### ABSTRACT

This study aims to (1) find out how to implement the safety management system on board ships at shipping companies in Banjarmasin 2) to know the safety management system on board. This, of course, related to occupational health and safety, is a thought and effort to ensure the integrity and perfection of both physical or spiritual with efforts to prevent and treat diseases or health problems caused by work and the work environment, as well as general illnesses. Occupational safety is a series of efforts to create a safe and peaceful working atmosphere for employees who work in the company concerned and a condition that is safe and safe from suffering and damage or loss in the workplace, both when using tools, materials, machines in the process processing, packing techniques, storage, as well as maintaining and securing the workplace and environment.

**Keywords:** *Management, safety, ship*

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## INTRODUCTION

Indonesia is the largest maritime country in the world, and most of Indonesia's territory is ocean territory (Defraeye dkk., 2019). Article 33, paragraph (3) of the 1945 Constitution states that the land, water and natural resources contained therein are controlled by the State and used for the prosperity of the people (Alyami dkk., 2019).

The Indonesian President also emphasized that he was determined to make Indonesia a world maritime axis (Tan dkk., 2019). The world maritime axis will make Indonesia a big (Li dkk., 2020), strong and prosperous maritime country.

Transportation is the lifeblood of which plays a large role in supporting the wheel of national development (Grønsund & Aanestad, 2020). Transportation is basically a link between separate points in space with various activities in it (Glenk & Reichelstein, 2019). The development of the transportation sector will directly reflect the growth of ongoing economic development (Zhai dkk., 2019). Therefore (Lai dkk., 2020), one of the strategies for accelerating and expanding national economic development is to prioritize strengthening connectivity between regions and between islands (Tickner dkk., 2020), especially the outermost islands (Dun & Parkinson, 2020). This connectivity can only be realized if sea transportation gets a role.

Significant Shipping is a decisive element in the smooth running of sea transportation to support national development goals (Golan dkk., 2020). The inconsistency in handling sea transportation systems and problems, as well as the unequal attention to shipping safety issues (Kumar dkk., 2019), can hamper the provision of transportation services throughout the Indonesian Maritime Continent. Smooth sea transportation is a medium for inter-island interaction that acts as a 'bridge (Taeihagh & Lim, 2019)', effectively and efficiently realizing insight into the archipelago. Therefore sea transportation facilities are very important to connect the sea areas spread throughout Indonesia.

In the era of globalization (Gui dkk., 2019), with its increasingly rapid development, it will indirectly impact changes in the global order of life. Along with advances in technology and information (Jones & Naidu, 2019), it demands to continue innovating in the industrial world. During globalization (Sung dkk., 2021), technology and hazardous materials use continues to increase according to industrial needs (Malešević, 2019). The use of technology is unavoidable. Many companies use technology to replace human labour (Wosik dkk., 2020). In addition to providing convenience in a production process, it has side effects that cannot be avoided (Scherer dkk., 2019). Besides that, work environment factors that do not meet Occupational Safety and Health requirements, unsafe work processes and increasingly complex and modern work systems can be a separate threat to worker safety and health.

Safety (K3) is occupational health (Gan dkk., 2020), a condition where a worker is free from physical and mental disturbances as a result of the influence of work and the environment and as a health condition that aims to make the working community obtain the highest degree of health, both physically (Ali kk., 2019), spiritually and socially (Saadat dkk., 2020), with efforts to prevent and treat diseases or health problems caused by work and the work environment as well as general illnesses. Occupational safety is a series of efforts to create a safe and peaceful working atmosphere for employees who work in the company concerned and a condition that is safe and safe from suffering and damage or loss in the workplace (Briffa dkk., 2020), both when using tools (The Gene Ontology Consortium dkk., 2021), materials, machines in the process processing (Sarker,

2021), packing techniques (Arvanitis dkk., 2020), storage (Fang dkk., 2019), as well as maintaining and securing the workplace and environment.

Occupational Health and Safety is a thought and effort to guarantee the integrity and perfection of both body and spirit (Cheung dkk., 2020). With Occupational Health and Safety, workers are expected to be able to do work safely and comfortably (Klockgether dkk., 2019). Work is said to be safe if whatever the worker does in conditions of no pressure, the risks that may arise can be avoided (Bourouiba, 2020). Work is said to be comfortable if the workers can do the work feeling comfortable and at ease so they do not get tired easily (Legros dkk., 2019). Occupational health and safety have the objective of minimizing or eliminating potential hazards or risks that may result in illness or accidents and losses that may occur (Abela dkk., 2020). The mindset of Occupational Health and Safety is to avoid the risk of illness or injury with a scientific and practical approach in a systematic (systematic) and within a framework of system thinking (system-oriented) (Richardson dkk., 2019). Before understanding the causes and occurrence of illness and injury, one must first understand the potential hazards (hazards) that exist. Then it is necessary to identify (identify) these potential hazards, their existence, types, patterns of interaction and so on. After that, it is necessary to assess (assess, evaluate) how the danger could pose a risk (risk) of illness and injury.

## **RESEARCH METHODOLOGY**

In research, the method is scientific and attempts to find data for specific purposes and uses (Munn dkk., 2018). Therefore, in this study, I used a descriptive qualitative method. That is, I did not explain the discussion through numbers but used words and sentences to explain (Fox dkk., 2020) and describe or describe the topic of discussion (Deslauriers dkk., 2019). The data source of this research is the subject where the data is obtained. According to Iqbal Hasan, the source of this research data is about who (Sharma dkk., 2019), what, and where the information related to the research focus was obtained (Kortright dkk., 2019). The data sources for this research were some direct information and sources of field activities, and the data obtained were analyzed using descriptive analysis.

## **RESULT AND DISCUSSION**

Safety Equipment on board Safety equipment, deterrence and fire extinguishers, breathing apparatus and other equipment must be available according to national and international regulations applied in the boat. Laying out of safety and fire fighting equipment is regulated based on the instructions of each ship's safety plan and fire control plan. This equipment must be maintained in good condition according to the manufacturer's guidelines so it is ready for use at any time. Immediately after joining the ship, with a maximum period of 1 x 24 hours, new crew members must take part in a familiarization program or an introduction to the location of fire extinguishers on board, methods of use, and types of extinguishers.

The Master or Captain is responsible for ensuring that the crew understands the instructions and symbols used in the ship's fire control plan. To ensure the effectiveness and understanding of the ship's crew in fire management, the master or captain is responsible for ensuring that fire drills on board are held regularly. The process of fire drills is recorded and reported to the HSE-Q department. Occupational safety is carried out before carrying out work with a large value of risk by personnel with appropriate competence to review implementation procedures, identify hazards and select methods to eliminate or provide control according to the identified hazards.

Personnel carrying out a safety analysis of a job must determine the sequence or steps of the work and list any potential hazards for each step, then list ways to eliminate or reduce the identified potential hazards. The use of personal protective equipment should be considered and demonstrated where required. In developing the process, the application of work safety aims to Guarantee the low risk of injury or damage to the crew, the ship and its cargo. Guarantee the use of work equipment that is appropriate and in good condition. Ensure that every person understands the work being done and the dangers. Ensure that everyone wears appropriate protective equipment. Establish a safe work system.

The HSE-Q Department should ensure that accident investigations are carried out to determine appropriate preventive measures to avoid accidents in the future. In carrying out accident investigations, the focus should be on the facts that occurred. The investigation is carried out with the following steps Collection of evidence or accident data. Interview with the witness of the accident. Cause analysis. The results of the investigation are recorded in the accident investigation form. The HSE-Q Department is responsible for maintaining records of accident investigations.

Work Instructions for the Use of Personal Protective Equipment and Safety Equipment To implement and maintain a safety system, all ship personnel and ground personnel assigned to ships or other floating structures, are responsible for understanding. The instructions described in this guidance document cover the duties and responsibilities in an emergency. Duties and responsibilities in an emergency include a Place for storage of emergency response equipment and safety equipment. Methods of using safety equipment and emergency equipment. Method of calling or distress signal. Actions in an emergency.

Ground personnel assigned to ships or other floating structures are required to obtain a safety induction regarding the conditions of the work environment and the safety equipment required while on duty. The master or captain is responsible for motivating and training other crew members to ensure that all crew members understand the actions required and their respective roles in dealing with emergencies. Training in the use of safety equipment must include instructions relating to personnel safety, including personal protective equipment. Some parts of safety training can pose a risk of harm. Particular attention to hazards must be paid to consider safety procedures and personal protective equipment.

The Master or Master is responsible for assessing the risk of harm in implementing safety training. If necessary, the Master or Captain can postpone or not carry out safety training which can pose a risk of danger. This work instruction procedure aims to explain how the ship's safety training system is carried out and documented. By reference ISO 9001:2008 Quality Guidelines, SOLAS, ISM Code. Provision of Safety Equipment: Every crew member on duty must use standard safety equipment. The company must provide standard safety equipment for each crew member, including work clothing (wear a pack or coverall) and safety shoes. Safety equipment is provided when the new crew is on duty, which will be renewed every year, or if the equipment is reported to be damaged or in a state not fit for use.

For routine updating, safety equipment will be provided to the crew directly without waiting for reports or requests from the crew. The crew must report the damage to the HSE-Q Department if the safety equipment is damaged before the routine renewal time. Furthermore, as a follow-up to the crew's report, HSE-Q Staff will provide or provide safety equipment as a replacement for damaged equipment. Work clothing (waterpark or coverall) provided by the company consists of several types, including a White wear pack Intended for Master or Captain Ch. Officer or Mate, second. The officer or Chief Mate, Ch. Engineer or Head of Machine Room (KKM), second. Engineer or Machinist 1. The blue wear pack is intended for third—engineer or machinist 2, AB or Able Body, Cook or Chef.

## **CONCLUSION**

The safety and security system is an important factor that must be considered and used as a basis and benchmark for decision-making in determining the feasibility of Shipping, both in terms of facilities in the form of ships and infrastructure such as navigation systems and the human resources involved in it. Human resources, weather, and facilities cause many cases of maritime accidents. The reason biggest cause of marine accidents is human resources, in addition to being one of the biggest factors that cause accidents in the waters. The process of safety systems and procedures in the field carried out by the ship's crew and the HSE-Q Dept. must coordinate well with each other for handling emergencies so that if an emergency occurs, the crew do not panic and can handle it according to the safety system procedures in standard shipping companies on generally. As well as the department's HSE-Q staff officers are vital in carrying out a system of safety procedures, and every crew member doing work must use personal protective equipment and safety equipment.

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