



Legal Analysis Of Marine Inspector's Duties and Responsibilities in Conducting Ship's Seaworthiness Tests (Research Study on Batam Special KSOP)

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ABSTRACT. *The importance of the role of Marine Inspectors in ensuring the safety and security of shipping through ship seaworthiness tests, which are regulated in various laws and regulations. However, the implementation of the duties and responsibilities of the Marine Inspector at the Batam Special KSOP still faces various obstacles that affect the effectiveness and efficiency of ship inspections. The purpose of this study is to analyze juridically the duties and responsibilities of the Marine Inspector in conducting a shipworthiness test at the Batam Special KSOP, identify the obstacles faced, and provide suggestions to overcome these obstacles. The research method used is a normative juridical method with an analytical descriptive approach, which involves the study of legal documents, as well as empirical juridical with case analysis, and interviews with related parties at the Batam Special KSOP. The results of the study show that Marine Inspectors at the Batam Special KSOP have a very crucial role in maintaining shipping safety, but they face significant obstacles such as limited human resources and equipment, lack of continuous training, and suboptimal coordination between agencies. Low compliance from ship owners and operators is also a major challenge in carrying out their duties. Suggestions for addressing these obstacles include increasing the number and competence of Marine Inspectors through ongoing recruitment and training, investing in modern equipment and digital technology, and improving inter-agency coordination through the establishment of regular coordination forums. In addition, strict law enforcement against violations of safety standards and increased education and socialization to ship owners and operators are expected to increase compliance and awareness of the importance of shipping safety. With the implementation of these measures, it is hoped that Marine Inspectors can carry out their duties more effectively, so that the safety and security of shipping in Batam City can be guaranteed and improved.*

Keywords: *Duties and Responsibilities, Marine Inspector, Ship Airworthiness Test.*

1. INTRODUCTION

Indonesia, as a maritime country, has vast waters and archipelagic territories, so that shipping is one of the important activities in various aspects of life, including transportation, trade, and industry. In carrying out shipping activities, the safety and seaworthiness aspects of ships are important to consider. In this context, the role of the Marine Inspector or Maritime Inspector is very vital, considering that they have the task and responsibility of conducting ship seaworthiness tests.

Indonesia is an archipelagic country with archipelago characteristics united by a very large water area with boundaries, rights, and sovereignty stipulated in Article 25A of the 1945 Constitution of the Republic of Indonesia. Indonesia is geographically located between two continents, namely the Asian continent and the Australian continent and is located between two oceans, namely the Indian Ocean and the Pacific Ocean (F.D.C. Sudjatmiko, 2009).

Sea transportation supported by the availability of sufficient and adequate sea transportation facilities has an important role, among others, to improve the smooth flow of goods and passengers between islands, increase the economic growth of a region and increase national unity. To realize the role of sea transportation, it must be supported by sea transportation facilities in the form of ships that comply with shipping safety standards (Hamzah A, 2014).

In planning and making a means of transportation including sea transportation, in addition to design, accommodation, technology, machinery, and so on, a designer and shipbuilder must pay attention to and take into account the safety and security issues of the ship. This must be done because it concerns the lives of passengers, the goods being transported, and business, economic, and maritime law issues. A ship must have safety and security facilities, both when the ship is docked (anchored) and when sailing, and both in safe shipping areas and vice versa. Because disasters cannot be calculated and estimated (Sapto Sardjono, 2014).

Ship safety is defined as a condition of a ship that meets the requirements of material, construction, building, machinery and electricity, stability, layout, fire prevention equipment, safety equipment, radio and ship electronics as evidenced by a safety certificate after inspection and testing. Shipping Safety is defined as a condition of fulfilling safety and security requirements concerning transportation in waters and ports (Frank H. Woodward, 2012). Ship accidents are regulated in Articles 245 to 249 of Law Number 17 of 2008 concerning Shipping. In Law Number 17 of 2008 concerning Shipping, Article 245 provides a definition of a ship accident, namely an incident experienced by a ship that can threaten the safety of the ship and/or human life in the form of a ship sinking, a ship burning, a ship colliding and a ship running aground.

There are several causes of shipping accidents, the first is the human factor is the biggest factor, including carelessness in operating the ship, the inability of the crew to master various problems that may arise in ship operations, consciously overloading the ship. The second factor is the technical factor, technical factors are usually related to the lack of care in ship design, neglect of ship maintenance resulting in damage to the ship or parts of the ship that cause the ship to have an accident, the ship burning as experienced by the Tampomas Ship in Masalembo waters, the Livina Ship.

The third factor is the natural factor, bad weather factors are problems that are often considered the main cause of sea accidents. The problems that are usually experienced are storms, high waves influenced by the season/storm, large currents, fog that results in limited

visibility. Marine Inspector is responsible for ensuring that ships operating in Indonesian waters meet all safety and seaworthiness standards set by laws and regulations. This task involves various activities, ranging from physical inspection of ships and safety equipment, evaluation of operational procedures, to reviewing the qualifications and skills of the ship's crew. Therefore, the role of Marine Inspector is very important to ensure the safety and efficiency of shipping operations, as well as to prevent accidents and incidents that have the potential to cause losses.

However, on the other hand, there are challenges and obstacles faced by Marine Inspectors in carrying out their duties and responsibilities. For example, limited resources, technical constraints, and issues related to the implementation and enforcement of the law. Therefore, it is important to conduct a legal analysis related to the duties and responsibilities of Marine Inspectors in conducting ship seaworthiness tests. Through this analysis, it is hoped that a deeper understanding can be obtained of the roles and challenges faced by Marine Inspectors, as well as solutions and recommendations to optimize their functions and performance in maintaining the safety and seaworthiness of ships.

Based on the background description above, the author raises several problems that will be discussed further. The problems are as follows:

1. How are the legal regulations for the duties and responsibilities of the Marine Inspector in conducting ship seaworthiness tests?
2. How are the duties and responsibilities of the Marine Inspector implemented in conducting ship seaworthiness tests?
3. What are the obstacles and efforts for the duties and responsibilities of the Marine Inspector in conducting ship seaworthiness tests?

Based on the formulation of the problem stated above, it can be seen that the objectives of this research are:

1. To know and analyze the legal arrangements of the duties and responsibilities of the Marine Inspector in conducting ship seaworthiness tests.
2. To know and analyze the implementation of the duties and responsibilities of the Marine Inspector in conducting ship seaworthiness tests.
3. To know and analyze the obstacles and efforts of the duties and responsibilities of the Marine Inspector in conducting ship seaworthiness tests.

2. LITERATURE REVIEW

Indonesia, as the largest archipelagic country in the world with more than 17,000 islands, has a long history of navigation and shipping. The sea and shipping have been an important part of economic and social life in Indonesia. Therefore, regulations governing shipping are very important to ensure safety, security, and efficiency in the maritime sector (Bambang Yudistira, 2016). Indonesia is the largest archipelagic country in the world, with more than 17,000 islands. The country has a long and diverse coastline, with oceans covering about 70% of its territory. These oceans not only connect islands within the country, but are also the main route for international trade. Therefore, maritime activities such as shipping, fisheries, and tourism play a vital role in the economy and social life of the Indonesian people (Bimo Aditya, 2018).

In response to these challenges, Indonesia has developed a series of maritime regulations and policies, including Law Number 17 of 2008 on Shipping, to ensure that maritime activities are carried out safely, efficiently and sustainably. These regulations aim to align Indonesia with international standards and practices, while taking into account the country's unique geography and domestic needs.

Before 2008, shipping regulations in Indonesia were still fragmentary and not comprehensive. The growth of the maritime industry and changes in global shipping practices require more comprehensive regulations that are in accordance with international standards. This includes regulations on shipping safety and security, port management, maritime environmental protection, and law and governance in the shipping industry (Agus Hartanto, 2018)

The development of this Law involved various stakeholders, including the government, maritime industry, and maritime law experts. This process aimed to ensure that the Law could reflect the specific needs of Indonesia while remaining in line with international conventions and norms. Emphasis was placed on shipping safety, environmental protection, and compliance with international standards such as those set by the International Maritime Organization (IMO). This Law covers various aspects of shipping, including:

- a. Shipping safety and security, including ship standards and crew qualifications.
- b. Prevention and handling of pollution by ships.
- c. Regulations on port activities and maritime facilities.
- d. Regulations on maritime transportation and navigation.
- e. Implementation of maritime search and rescue (SAR).
- f. Regulations on the authority and duties of PPNS in the context of maritime law.

As a port authority, KSOP is tasked with ensuring that all activities at the port, from loading and unloading goods, passengers, to ship maintenance, run in accordance with applicable standards and regulations. The main tasks of KSOP include regulating ship traffic, granting permits for berthing and ship operations, managing port facilities, and supervising the implementation of shipping safety and security standards.

This task requires close coordination with various parties, including shipping agents, port operators, and other agencies related to port activities. By effectively regulating ship traffic, KSOP contributes to the operational efficiency of the port, which is very important to support the smooth flow of trade and maritime transportation. The granting of ship operating permits also involves assessing the conformity of ships with established safety and security standards, so that only ships that meet the criteria are allowed to operate. In addition, KSOP is responsible for managing port facilities and supervising the implementation of shipping safety and security standards. Management of port facilities includes the maintenance and development of port infrastructure, such as docks, warehouses, and logistics areas, to ensure that these facilities can support efficient loading and unloading of goods and passengers.

These efforts are aimed at supporting Indonesia's vision as the world's maritime axis, which requires a port system that is not only efficient and modern, but also safe, environmentally friendly, and inclusive. KSOP plays a strategic role in advancing Indonesia's maritime sector through optimal port management, which in turn supports economic growth, improves connectivity between regions, and strengthens the integration of the national economy with the global logistics system.

The legal basis for ship seaworthiness testing in Indonesia is embedded in a series of laws and regulations that ensure that shipping operations in Indonesian waters comply with safety, security, and environmental protection standards. The main pillar of this legal basis is Law Number 17 of 2008 concerning Shipping, which is the legal basis for all aspects of shipping in Indonesia, including seaworthiness testing. This law generally regulates the principles of shipping safety and security, maritime environmental management, and the responsibilities of the government and stakeholders in the shipping industry. The goal is to create an integrated, safe, and environmentally friendly shipping system that supports national development.

The evaluation also assesses fuel efficiency and exhaust emissions, emphasizing the implementation of technologies that support air pollution reduction. The inspection aims to minimize the negative impacts of ship activities on the marine ecosystem and water quality, prevent marine pollution, and support global marine environmental conservation efforts.

Thus, seaworthiness testing ensures that ships not only meet legal and safety requirements but also contribute to efforts to protect and maintain the marine environment.

3. RESEARCH METHOD

The approach method in this study is a combination of the normative approach "legal research" with the empirical approach method "Juridical Sociologies". The research mechanism with this combined approach method is carried out by describing the explanation of the inductive research method leading to the deductive method and vice versa. This is done by the author to help explain the relationship between research variables and research objects so that it can produce an understanding that is very helpful for readers, especially researchers and academics.

The location of this research is carried out in the Riau Islands Province, precisely in Batam City. This location is determined based on the data that is the object of this thesis research. The sample used by the researcher is a random technique to find out for sure related to the research to be studied. As for the sample used by the author is a purposive sampling technique in determining respondents and informants who will be interviewed to meet the primary data needed to complete the research.

This type of research is included in the combined research category between normative legal research (library research) and observational research, while in terms of its nature it is analytical, where the author makes efforts to explore verbal data sourced from literature obtained from libraries and data obtained in the field, then analyzed to obtain conclusions deductively. (Noeng Muhajir, 2010)The data and data sources used in this study are primary data⁶⁶ and secondary data.

In this study, data analysis is carried out qualitatively by describing the research, then conducting a comparison between the data and legal theories, legal experts and laws and regulations, where the analysis begins with data collection, data processing and finally data presentation. While the conclusion drawing will use the deductive method, namely the author takes data, statements, opinions, which are general in nature and then draws specific conclusions.

4. RESULTS AND DISCUSSION

Legal Regulations on the Duties and Responsibilities of Marine Inspectors in Conducting Ship Seaworthiness Tests

The legal regulation of the duties and responsibilities of Marine Inspectors in conducting ship seaworthiness tests in Indonesia is based on various national laws and ratified international conventions. Marine Inspectors have an important role in ensuring that ships operating in Indonesian waters meet all established safety and seaworthiness standards, so as to ensure the safety and efficiency of shipping operations and prevent potentially detrimental accidents and incidents.

The Marine Inspector is responsible for conducting a thorough inspection of the ship, which includes physical, technical, and operational inspections. The physical inspection includes the condition of the ship's hull, deck, engine room, and other relevant areas to ensure there is no damage or wear that could affect the safety of the ship. The technical inspection involves evaluating the engine system and navigation equipment to ensure that everything is functioning properly and in accordance with established standards. In addition, the Marine Inspector also checks safety equipment such as life jackets, lifeboats, fire extinguishers, and emergency communication systems to ensure that they are available in sufficient quantities and in good condition.

In Indonesia, the implementation of MARPOL means that all ships must be equipped with equipment and systems that prevent pollution of the marine environment. Ships must have adequate waste storage, waste separation and treatment systems, and pollution prevention procedures that must be followed by the ship's crew. The implementation of MARPOL in Indonesian waters is very important to maintain the cleanliness and health of the marine ecosystem, as well as ensuring that shipping activities do not damage the maritime environment (Erniyanti & Daniel Ferdinan Purba, 2024)

Implementation of Duties and Responsibilities of Marine Inspector in Conducting Ship Seaworthiness Tests

Marine Inspector at KSOP (Port Authority and Harbor Master Office) of Batam City has an important role in ensuring that ships operating in Batam City waters meet safety standards set by laws and regulations. Based on Law Number 17 of 2008 concerning Shipping, Government Regulation Number 51 of 2002 concerning Shipping, and Regulation of the Minister of Transportation Number PM 74 of 2015 concerning Ship Seaworthiness, Marine Inspector is tasked with conducting inspections and tests on ships. The main tasks of

Marine Inspector include physical inspection of ships, evaluation of technical systems, and verification of documentation that ensures the ship's seaworthiness to sail (Wawancara dengan Pegawai KSOP Khusus Batam, 2024).

Although the role of the Marine Inspector at the Special KSOP of Batam City has been clearly regulated in laws and regulations, the implementation of their duties and responsibilities in conducting ship seaworthiness tests still faces several challenges that result in suboptimal supervision and enforcement of shipping safety.

In 2019, KM Karunia Makmur experienced a leak in the hull while operating in Batam waters, which resulted in the ship almost sinking and raising serious concerns about the safety of passengers and crew. Investigations after the incident revealed that the ship had undergone seaworthiness tests, but an in-depth inspection of the condition of the ship's hull which had experienced corrosion and this leak should have been detected and prevented if a physical inspection had been carried out more carefully and thoroughly by the Marine Inspector. This case shows shortcomings in the implementation of the ship's physical inspection duties, where potential damage that could endanger shipping safety was not properly identified.

One of the main problems faced by Marine Inspectors at the Special KSOP of Batam City is the limited human resources and equipment. Many Marine Inspectors have to handle a high volume of work with limited resources, which results in less thorough and less routine inspections. This often results in ships operating without meeting the required safety standards. The lack of coordination between related agencies in Batam City is also a factor that hinders the effectiveness of supervision. Marine Inspectors often have to work with various parties, including port operators, ship agents, and law enforcement agencies. This weakness in coordination can result in a lack of integration of data and information needed to conduct comprehensive and accurate inspections.

Obstacles and Efforts of Marine Inspector's Duties and Responsibilities in Conducting Ship Seaworthiness Tests in Batam City

Batam City as one of the busy maritime and shipping industry centers faces unique operational challenges. The high volume of ship traffic, various types of ships in operation, and varying weather conditions add to the complexity of the Marine Inspector's duties. This challenging operational environment requires a more adaptive and responsive approach in carrying out their duties and responsibilities. Marine Inspectors must be able to adapt to dynamic and often unpredictable situations. Marine Inspectors in Batam City face various

obstacles in carrying out their duties and responsibilities to conduct ship seaworthiness tests. Limited human resources and equipment, lack of training, suboptimal inter-agency coordination, low compliance from ship owners, and challenging operational environments all contribute to the difficulties in ensuring shipping safety.

5. CONCLUSION AND SUGGESTION

Conclusion

Based on the discussion in the previous chapter, the following conclusions can be drawn:

- a. The legal regulation of the duties and responsibilities of Marine Inspectors in conducting ship seaworthiness tests in Indonesia is clearly regulated in various laws and regulations such as Law Number 17 of 2008 concerning Shipping, Government Regulation Number 51 of 2002 concerning Shipping, and Regulation of the Minister of Transportation Number PM 74 of 2015 concerning Ship Seaworthiness. Marine Inspectors play a vital role in ensuring shipping safety through physical inspections, technical system evaluations, and verification of ship documentation. However, the implementation of this task still faces various obstacles such as limited resources, lack of training, and suboptimal inter-agency coordination.
- b. The implementation of the duties and responsibilities of Marine Inspectors in conducting ship seaworthiness tests in Batam City is a very crucial task in ensuring shipping safety and security, although their role is regulated in detail in laws and regulations, its implementation still faces a number of significant challenges such as limited human resources and equipment, lack of training, suboptimal inter-agency coordination, and low compliance from ship owners and operators.
- c. Obstacles to the implementation of Marine Inspector's duties and responsibilities in conducting ship seaworthiness tests in Batam City include limited human resources and equipment, lack of training, suboptimal inter-agency coordination, and low compliance from ship owners and operators. Efforts to overcome these obstacles include increasing the number and competence of Marine Inspectors through recruitment and ongoing training, investment in modern equipment, improving inter-agency coordination, and stricter law enforcement and education for ship owners.

Suggestion

From this conclusion, the author can provide several suggestions, namely:

- a. It is recommended that the Government and port authorities in Batam City need to increase the number of competent Marine Inspectors through recruitment and continuous training programs.
- b. It is recommended that the Batam Special KSOP improve the accuracy and efficiency of ship inspections by adding modern equipment such as leak detection devices, underwater inspection equipment, and electronic monitoring systems.
- c. It is recommended that to overcome the problem of inter-agency coordination, a regular coordination forum be established between KSOP, port operators, ship agents, and law enforcement agencies to share information and address operational issues. In addition, strict law enforcement against violations of safety standards needs to be implemented to provide a deterrent effect and ensure compliance from ship owners and operators. Education and socialization regarding the importance of shipping safety must also be increased to build a strong culture of compliance.

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