

Legal Analysis on the Seaworthiness of High-Speed Passenger Ships (HSC) and Challenges in Shipping Safety Supervision in the Waters of the Riau Islands (Research Study at Sekupang Domestic Port)

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ABSTRACT

This research is based on the importance of shipping safety to protect passengers, crew, and the maritime environment from high risk of accidents, especially on high-speed ships that have special operational characteristics. Legal arrangements related to HSC seaworthiness have been regulated in various national regulations such as Law Number 17 of 2008 concerning Shipping, Regulation of the Minister of Transportation Number PM 12 of 2022, as well as international conventions such as SOLAS, MARPOL, and STCW. However, its application in the field still faces various obstacles. This study aims to analyze the law regarding the seaworthiness of high-speed passenger ships (HSC) and challenges in the supervision of shipping safety in the waters of the Riau Islands, with a focus on the study at Sekupang Domestic Port, Batam City. This study uses normative juridical methods to analyze applicable laws and regulations and empirical sociological methods to explore field information through interviews and observations of related parties, such as port authorities, ship operators, and crew members at Sekupang Domestic Port. The results of the study show that the implementation of HSC seaworthiness in the waters of the Riau Islands is not optimal. The main obstacles include a lack of trained human resources, inadequate inspection facilities, weak law enforcement, ineffective inter-agency coordination, and low awareness and education on the importance of maritime safety. Based on these findings, it is recommended that the Batam Special KSOP improve the competence of inspectors and supervisors through a continuous training program. The government is expected to allocate a budget for investment in modern inspection facilities and equipment. In addition, the maritime community, especially operators and crew members, need to increase their awareness and understanding of shipping safety through active participation in education and training programs. With these efforts, it is hoped that the implementation of HSC seaworthiness can be more optimal, thereby improving shipping safety in the waters of the Riau Islands.

1. INTRODUCTION

Riau Islands is a province in Indonesia consisting of thousands of islands, with waters being the main transportation route between the islands. One of the popular modes of transportation is the high-speed passenger ship or High Speed Craft (HSC), which provides fast and efficient services. However, the use of HSC also carries significant challenges and safety risks, especially due to the complex conditions of the waters in the Riau Islands. Shipping has an important role in the socio-economic welfare of people in a maritime country like Indonesia. Likewise, shipping plays an important role in general government administration, as well as in

the context of national security and other issues. Domestic and international shipping activities take place within the borders of the country. The issuance of various international shipping regulations, such as UNCLOS 1982 on the ratification of the United Nations Convention on the Law of the Sea, which is the most important international convention in the maritime field, and SOLAS (Safety of Life at Sea), which is a precursor to maritime safety standards that must be applied to commercial ships of a certain size. The islands in Indonesia can only be connected between islands by sea. The unity of Indonesia can only be realized through communication between islands and coasts. Based on the factors and reasons above, it can be concluded that although the islands are physically separated from each other by the ocean, they are just one large island that has been split by natural processes.

The economy can move forward faster with the help of transportation. Improving and assisting the country's defense and security, which can then improve international relations, in order to improve the unity and integrity of the nation, helping to achieve the vision of the archipelago. The implementation of transportation that has an impact on all aspects of national and state life, as well as the increasing need for transportation services for the movement of people and goods both domestically and abroad is an indication of the importance of transportation. Sea transportation functions as a national mode of transportation and utilizes waterways to connect all regions. The sea and ships are a unified system of transportation at sea that cannot be separated, history proves the movement of trade and the distribution of population with the use of human power, starting from rowing boats, installing sails, to being driven by engines and we arrive at the term shipping for water transportation activities at sea.

Implementation of cooperation between Port Authorities and ships operated for maritime law enforcement. The purpose of maritime law enforcement is to enforce the rules and regulations governing the use of the sea for transportation and communication, as well as the sovereignty of the country's territorial sea. This is why maritime law enforcement is very important, using natural resources, environmental resources and ecosystems efficiently. Security and safety patrol activities which are partly organized by different stakeholders and supervised by the maritime security coordination authority are used to enforce the law at sea. The Harbor Master plays a crucial role in carrying out the safety and security functions of shipping, as stated in the shipping law which discusses the role, duties, and authorities of the Harbor Master. Therefore, before issuing a letter to sail (SPB), it is mandatory to supervise and check the ship and ship documents.

The importance of Sailing Approval Letter is specifically regulated in Law Number 17 of 2008 concerning Shipping. Even though there are regulations governing Sailing Approval Letters, it is not uncommon to find several maritime transportation accidents caused by negligence in granting sailing permits. Safety and security issues and all activities in shipping are the responsibility of the port. One of the biggest problems in ship accidents in shipping is the issue of a person's ability and expertise in carrying out his harbormaster's duties in issuing ship seaworthiness certificates, sailing permits, safety and security of shipping, and all maritime transportation activities in Indonesian waters. In accordance with Article 219 of Law Number 17 of 2008 concerning Shipping, to carry out shipping activities, every sea transportation (ship) requires a Sailing/Mooring Approval Letter (SPB) issued by the harbor master in order to sail or anchor. The harbor master requires data obtained from the State-Owned Enterprise (BUMN), namely the Indonesian Classification Bureau (BKI), which is a special agency for supervising sea transportation (ships) in the construction and completeness of the ship so that the harbor master can issue letters or documents that will be used by sea transportation to sail. Even though there are regulations governing the role of a harbor master, it is not uncommon to find several sea transportation accidents caused by the negligence of a harbor master in carrying out his harbor master duties.

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

1. What are the legal regulations regarding the seaworthiness of High-Speed Passenger Ships (HSC) in the waters of the Riau Islands?
2. How is the implementation of the seaworthiness of High-Speed Passenger Ships (HSC) in the waters of the Riau Islands?
3. What are the obstacles and efforts in supervising the safety of sailing High Speed Passenger Ships (HSC) in the waters of the Riau Islands?

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

1. To find out and analyze the legal regulations on the seaworthiness of High-Speed Passenger Ships (HSC) in the waters of the Riau Islands.
2. To find out and analyze the implementation of the seaworthiness of High-Speed Passenger Ships (HSC) in the waters of the Riau Islands.
3. To find out and analyze the obstacles and efforts in supervising the safety of sailing High Speed Passenger Ships (HSC) in the waters of the Riau Islands.

2. LITERATURE REVIEW

Ship seaworthiness testing in Indonesia is an important process that aims to ensure that all ships operating in Indonesian waters meet the safety, security and environmental standards set by the Indonesian government and relevant international standards. This process is carried out by the Directorate General of Sea Transportation, Ministry of Transportation, together with other relevant agencies. The main objectives of the seaworthiness test are to ensure the safety of passengers, crew and goods carried. Protect the maritime environment from pollution by ship activities. Ensure that ships operate in accordance with international and national standards related to shipping safety and security. Ship seaworthiness testing is an essential procedure carried out to ensure that all ships sailing in any waters, especially in Indonesia, operate in safe conditions and meet maritime safety standards set nationally and internationally.

The main purpose of seaworthiness testing is to ensure the safety of passengers, crew, and goods carried. Thus, a ship that has passed the seaworthiness test is considered fit for operation, reducing the risk of accidents that can cause loss of life and material losses. This includes checking the physical condition of the ship, such as the integrity of the hull and the suitability of navigation equipment and safety equipment, to ensure that all aspects function in accordance with safety requirements. In addition, the second purpose of seaworthiness testing is to protect the marine environment from potential pollution that may be caused by ship operations. Ships must meet certain standards relating to the management and disposal of waste, including used oil, domestic waste and exhaust emissions, in accordance with MARPOL (International Convention for the Prevention of Pollution from Ships). Seaworthiness testing examines the systems and procedures used by ships to manage this waste, ensuring that the ship is not only safe for passengers and crew, but also does not pose a risk to the marine ecosystem.

Legal Basis for Ship Seaworthiness Testing in Indonesia is based on several regulations, including: Law Number 17 of 2008 concerning Shipping. Government Regulations and Regulations of the Minister of Transportation relating to shipping safety and security and protection of the maritime environment. International conventions such as SOLAS (Safety of Life at Sea), MARPOL (International Convention for the Prevention of Pollution from Ships), and STCW (International Convention on Standards of Training, Certification and Watchkeeping for Seafarers) which have been ratified by Indonesia. Seaworthiness of high-speed craft (HSC) is a standard and set of requirements that must be met to ensure the safety and security of the operation of such vessels. High-speed craft, which can include fast ferries,

hovercraft, and other types of vessels designed to carry passengers at higher speeds than conventional ships, require a special approach in terms of design, construction, and operation to address the risks associated with high speeds at sea.

Safety and security of shipping is one of the main reasons why comprehensive regulations are needed. Indonesia, with its dense shipping traffic and complex geographical conditions, requires clear rules to regulate all aspects of shipping safety, from ship standards to crew qualifications. These regulations aim to prevent accidents, ensure effective emergency response, and improve the safety of passengers and crew. Indonesian maritime regulations need to be aligned with international standards and conventions to ensure that Indonesian shipping can operate globally. This includes compliance with international conventions such as the SOLAS (Safety of Life at Sea) Convention, MARPOL (Prevention of Pollution by Ships), and STCW (Standards for the Training, Certification and Watchkeeping of Crews). These alignments are essential to ensure that vessels operating under the Indonesian flag are accepted at international ports and that Indonesian maritime trade remains competitive.

Law Number 17 of 2008 concerning Shipping is an important milestone in Indonesian maritime regulation. The development and implementation of this law was motivated by the need to provide a comprehensive and modern legal framework that is in accordance with international standards and Indonesia's domestic needs. Background of the Development of Law The development of Law Number 17 of 2008 began with the recognition of the need for more integrated and comprehensive shipping regulations in Indonesia. Previously, shipping regulations in Indonesia were still fragmentary and did not fully meet international standards. This created the need to formulate laws that could regulate the maritime sector more effectively, especially considering Indonesia's strategic position as an archipelagic country with a vital shipping sector.

Law Number 17 of 2008 on Shipping is an important step in Indonesia's efforts to develop its maritime sector in line with domestic needs and global responsibilities. Despite the challenges, this law is an important foundation for a safer, more efficient and more sustainable future for shipping in Indonesia. The implementation of this law has received a positive response in encouraging increased maritime safety and security standards in Indonesia. However, there are also challenges, especially in its implementation, related to infrastructure, human resources and other aspects of the justice system and law enforcement in Indonesia. The history of Maritime Transportation regulation in Indonesia, particularly through Law Number 17 of 2008 concerning Shipping, reflects the country's efforts to adapt its legal system to global

dynamics and domestic needs, while still trying to overcome various challenges in its implementation.

3. RESEARCH METHOD

The specification of this research only carries out analysis up to the level of synthesis, namely analyzing and presenting facts systematically so that they can be more easily understood and concluded. The specification and/or type of this thesis research is normative legal research while combining it with sociological (empirical) legal research using secondary data obtained directly from the first source through field research through interviews and primary data as a source/information material in the form of primary legal materials, secondary legal materials and tertiary legal materials.

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 Batam City, precisely at the Sekupang Domestic Port. This location is determined based on the data that is the object of this thesis research. The population is The sample used by the researcher is a random technique to find out for sure related to the research to be studied. 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.

4. RESULTS AND DISCUSSION

Legal Regulations on the Seaworthiness of High-Speed Passenger Vessels (HSC) in the Waters of the Riau Islands

Legal regulations regarding the seaworthiness of high-speed passenger ships (HSC) in the Riau Islands waters, namely:

a. Law Number 17 of 2008 Concerning Shipping

Article 219 of Law Number 17 of 2008 concerning Shipping is a provision that underlines the importance of the Sailing Approval Letter (SPB) as a mandatory document that

must be owned by every ship that will sail. The SPB is issued by the Harbor Master, who acts as the port authority and is responsible for the safety and security of shipping. The main function of the SPB is to ensure that the ship has met all safety, security, and seaworthiness requirements in accordance with the standards set by applicable laws and regulations. This includes technical inspections of the ship, such as the condition of the hull, engine, navigation equipment, and safety equipment such as life jackets, lifeboats, and fire extinguishers. With the presence of SPB, the Harbor Master can provide assurance that the ship is seaworthy and does not endanger the safety of passengers, crew, or the maritime environment. SPB also acts as an effective monitoring mechanism to prevent accidents and incidents at sea. By ensuring that every ship that sails has met all safety and security requirements, SPB helps reduce the risk of accidents caused by technical failure or human negligence.

b. Regulation of the Minister of Transportation Number PM 12 of 2022 Concerning Seaworthiness of High-Speed Vessels Flying the Indonesian Flag

Articles 1-5 of the Regulation of the Minister of Transportation Number PM 12 of 2022 concerning the Seaworthiness of Indonesian-flagged High-Speed Vessels establish the essential foundations that form the basis for this regulation. The determination of the definition, scope, and objectives of this regulation aims to ensure that high-speed vessels (High-Speed Craft or HSC) operating under the Indonesian flag meet the established safety and seaworthiness standards, so that they can operate safely and efficiently.

Article 4 of the Regulation of the Minister of Transportation Number PM 12 of 2022 concerning the Seaworthiness of Indonesian-flagged High-Speed Vessels regulates the requirements for construction materials and design of high-speed vessels. The materials used must meet marine-use standards approved by a recognized classification body. The design of the vessel must ensure the strength of the structure to withstand static and dynamic loads under all operating conditions. This includes the design of the hull, deck, and other compartments that must be designed to ensure the stability and safety of the vessel. Design standards also include requirements for navigation equipment and safety systems, which must be installed and tested to ensure they function properly.

Article 5 of the Regulation of the Minister of Transportation Number PM 12 of 2022 concerning the Seaworthiness of Indonesian-flagged High-Speed Vessels emphasizes the importance of ship stability and safety equipment. High-speed vessels must have sufficient stability to withstand various sea and weather conditions.

This means that the vessel must be able to return to a stable position after experiencing disturbances such as high waves or sudden maneuvers.

c. International Conventions Ratified by Indonesia

The International Convention for the Safety of Life at Sea (SOLAS) 1974 is one of the most important international treaties that sets out safety standards that ships around the world, including High-Speed Craft (HSCs), must comply with. SOLAS regulates various aspects of maritime safety, including ship stability, structural integrity, fire-fighting systems, and life-saving equipment.

The International Convention for the Prevention of Pollution from Ships (MARPOL) 1973/78 is an international treaty aimed at minimizing marine pollution from various sources generated by ships, including high-speed craft (HSC). MARPOL sets out regulations that require ships to manage and dispose of waste responsibly.

The Watchkeeping for Seafarers (STCW) 1978 sets global standards for the training and certification of seafarers to ensure that they have the competencies required to operate ships safely and efficiently. In the context of high-speed ships (HSCs), STCW provides specific guidance covering the technical skills, navigational knowledge and safety procedures that seafarers must master. This training covers aspects such as operating the ship's machinery, navigating at high speeds, emergency management and the use of safety equipment.

Implementation of Seaworthiness of High-Speed Passenger Vessels (HSC) in the waters of the Riau Islands

The implementation of seaworthiness of high-speed passenger ships (High-Speed Craft or HSC) in the waters of the Riau Islands involves various steps to ensure that these ships meet the safety standards set by national and international regulations. This process includes technical inspections of the ship, including stability, structural integrity, fire extinguishing systems, and safety equipment. Article 4 paragraph (2) and paragraph (3) of the Regulation of the Minister of Transportation Number PM 12 of 2022 explains that in addition to the high-speed passenger ship category which is divided into categories A and B, there is category C. Category C ships are high-speed passenger ships and/or high-speed cargo ships that have special characteristics. These special characteristics include a ship length of no more than 24 meters and using outboard engine propulsion. Ships in this category are designed for short-term operations with routes of no more than two hours from the port of departure to the port of destination or shelter based on weather conditions and traffic density.

For ships with category C, seaworthiness standards still refer to several important requirements. Article 7 stipulates that category C ships must have sufficient stability and be able to return to their original state after being heeled due to external forces. In addition, the ship must have sufficient reserve buoyancy at the design waterline to meet the requirements for intact stability and damaged stability. The use of materials for ship construction must also meet marine-use standards approved by a recognized classification society, so that the ship is able to withstand static, dynamic, and cyclic loads that can affect the safety of the ship. Although these requirements are clear and firm, in reality many category C vessels in Batam waters have not fulfilled the obligation to complete them. Several factors causing this include the lack of awareness and understanding of ship operators about the importance of safety equipment, as well as the costs that must be incurred to meet safety standards. Many ship operators tend to ignore regulations in order to save operational costs, not realizing that investing in safety equipment can actually reduce the risk of accidents and greater losses in the future.

To address this issue, collaborative efforts are needed between the government, port authorities, and the maritime community. The government can improve supervision and enforcement by conducting stricter and more frequent inspections, and imposing strict sanctions on ships that do not meet safety requirements. In addition, education and training programs on the importance of maritime safety must be increased to raise awareness and understanding among ship operators. Articles 48 to 50 regulate operational restrictions for category C ships. These ships are prohibited from operating for more than two hours from the port of departure to the port of destination, may not sail at night, and must avoid bad weather conditions with limited visibility and wave heights of no more than 1.5 meters.

To address these violations, increased law enforcement and education among ship operators are needed. Port authorities and maritime safety regulators should conduct more frequent patrols and impose strict sanctions on ships that violate operational regulations. In addition, educational programs should be increased to raise ship operators' awareness of the importance of complying with operational restrictions for their own safety and that of their passengers. This education could include training on weather risk assessment, night navigation, and the importance of following safe routes and schedules. Incentives could also be provided to ship operators who comply with all safety regulations, as a way to encourage wider compliance in the shipping industry. With these steps, it is hoped that violations of operational restrictions can be reduced and shipping safety in the waters of Batam City can be improved.

Obstacles and Efforts to Implement Seaworthiness of High Speed Passenger Vessels (HSC) in the Waters of the Riau Islands

Obstacles to the implementation of seaworthiness of high-speed passenger ships (HSC) in the Riau Islands waters at the Sekupang domestic port in Batam City, namely:

a. Lack of Human Resources and Facilities

One of the main obstacles in implementing the seaworthiness of high-speed passenger vessels (HSC) at Sekupang Domestic Port is the lack of trained human resources and adequate facilities to conduct inspections and supervision. Harbormasters and port authorities often lack experts who have the technical competence to conduct comprehensive inspections of HSC vessels. This includes checking the vessel's stability, structural integrity, and safety systems. In addition, the facilities and equipment needed to conduct technical inspections and testing are often inadequate, making the inspection process less efficient and less thorough, which can miss critical issues that could endanger shipping safety.

b. Weak Compliance and Law Enforcement

Compliance with maritime safety standards and weak law enforcement are also significant obstacles to the implementation of HSC seaworthiness. Although there are strict regulations such as Law Number 17 of 2008 concerning Shipping and Regulation of the Minister of Transportation Number PM 12 of 2022, their implementation is often hampered by a lack of awareness and understanding of the importance of these safety standards among ship operators and crews. Many ship operators do not comply with regulations on crew training and certification and ship waste management, which are regulated by international conventions such as SOLAS, MARPOL and STCW. In addition, sanctions for violators are often inconsistently applied, which weakens the deterrent effect and motivates non-compliance.

c. Ineffective Inter-Agency Coordination

Coordination between various related agencies such as the Ministry of Transportation, the Indonesian Classification Bureau (BKI), and port authorities is often ineffective, resulting in inconsistent and less than optimal law enforcement actions. The lack of cooperation and communication between these agencies can result in delays in decision-making and corrective actions, as well as a lack of synchronization in the implementation of HSC ship safety and seaworthiness standards. This can reduce the effectiveness of supervision and inspection, and hinder efforts to improve shipping safety.

d. Economic and Safety Imbalance

Sometimes, there is an imbalance between economic incentives and safety requirements. Ship operators may feel compelled to maximize profits while minimizing maintenance and inspection costs, which can lead to neglect of safety standards. This economic pressure often makes operators focus more on commercial aspects than on the seaworthiness and safety of the ship. If not balanced with strict supervision and enforcement, this can increase the risk of accidents and incidents at sea.

e. Lack of Awareness and Education

Awareness and education on the importance of ship seaworthiness and maritime safety is still low among ship operators and crews. Many may not fully understand the risks associated with non-compliance with safety standards or are not aware of proper safety procedures. The lack of effective training programs and education campaigns from authorities also contribute to the low level of compliance and safety culture at this port.

Efforts to overcome obstacles to the implementation of seaworthiness of high-speed passenger ships (HSC) in the Riau Islands Waters at the Sekupang Domestic Port, Batam City, namely:

To address the shortage of trained human resources and adequate facilities, governments and port authorities can improve training and education for ship inspectors and supervisors. Special training programs can be designed to improve the technical competence of personnel in conducting inspections of ship stability, structural integrity, and safety systems. In addition, investment in more sophisticated and modern inspection equipment and facilities is essential. With adequate equipment, the inspection process can be carried out more efficiently and in-depth, thus detecting critical problems that may have been missed previously.

Stricter and consistent enforcement is essential to ensure compliance with maritime safety standards. Port authorities should apply strict and fair sanctions to ship operators who do not comply with regulations, including suspension of operations, fines, or revocation of sailing permits. In addition, awareness and education campaigns on the importance of safety standards should be intensified among ship operators and crews. Regular training programs and socialization of maritime safety regulations can help improve understanding and compliance with existing regulations.

Better coordination between various related agencies, such as the Ministry of Transportation, the Indonesian Classification Bureau (BKI), and port authorities, is essential to address the issue of inconsistent law enforcement. The establishment of a cross-agency

coordination team responsible for ensuring effective implementation and enforcement of safety standards can help address this obstacle. This team can hold regular meetings to share information, identify problems, and design joint solutions to ensure optimal shipping safety.

Governments need to develop policies that balance economic incentives and safety requirements. Incentives can be provided to ship operators who comply with maritime safety standards, such as reduced port fees or tax breaks. In addition, financial assistance programs for ship maintenance and upkeep can be introduced to help ship operators who may have financial constraints in meeting safety requirements. In this way, ship operators can continue to prioritize safety without sacrificing the economic aspects of their operations.

To increase awareness and education on the importance of ship seaworthiness and maritime safety, port authorities can conduct more intensive training programs and education campaigns. This training should cover all aspects of ship safety, from the use of safety equipment to emergency evacuation procedures. In addition, education campaigns involving mass and social media can be used to raise public and maritime community awareness on the importance of safety standards. With increased awareness, it is expected that the level of compliance with maritime safety regulations will increase significantly.

The application of modern technology in supervision and inspection can help improve the effectiveness of ship seaworthiness implementation. The use of drones for visual inspection, automatic sensors for ship condition monitoring, and IT-based safety management systems can provide more accurate and real-time data on ship conditions. This technology can help port authorities conduct more efficient inspections and detect potential problems quickly.

By adopting these efforts, Sekupang Domestic Port can overcome obstacles in implementing high-speed passenger ship seaworthiness, thereby improving shipping safety and protecting passengers and crew in the waters of the Riau Islands.

5. CONCLUSION AND SUGGESTION

Conclusion

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

- a. Legal regulations on the seaworthiness of high-speed passenger ships (HSC) in the waters of the Riau Islands are based on various strict national and international regulations to ensure the safety and operational efficiency of ships, relevant regulations include Law Number 17 of 2008 concerning Shipping, which requires every ship to have a Sailing Approval Letter (SPB), Regulation of the Minister of Transportation

Number PM 12 of 2022, which stipulates standards for construction materials, stability, and safety equipment for HSCs, as well as international conventions such as SOLAS (Safety of Life at Sea) 1974 for maritime safety standards, MARPOL (International Convention for the Prevention of Pollution from Ships) 1973/78 for the prevention of marine pollution, and STCW (International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers) 1978 for crew training and certification.

- b. The implementation of seaworthiness of high-speed passenger ships (HSC) with category (type) C in the waters of the Riau Islands, especially in Sekupang Domestic Port, Batam City, is still not optimal because many ships do not meet the required safety equipment standards and often violate operational restrictions set by the Minister of Transportation Regulation Number PM 12 of 2022, non-compliance with provisions regarding operational hours, prohibitions on sailing at night, and bad weather conditions indicate a lack of awareness and understanding of ship operators about the importance of maritime safety. In addition, the lack of strict law enforcement and adequate facilities and training for ship supervisors and operators also contribute to the low level of compliance with safety regulations, which ultimately increases the risk of accidents and threatens the safety of passengers and crew.
- c. Obstacles to the implementation of seaworthiness of high-speed passenger ships (HSC) in the waters of the Riau Islands, especially in the Sekupang Domestic Port, Batam City, namely the lack of trained human resources, inadequate inspection facilities, weak law enforcement, ineffective inter-agency coordination, and low awareness and education regarding maritime safety. To overcome these barriers, efforts are needed to improve training and education for inspection personnel, invest in more modern inspection facilities and equipment, enforce stricter and more consistent laws, and conduct intensive education and training campaigns for operators and crews.

Suggestion

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

- a. It is recommended that the Batam Special KSOP organizes ongoing training and certification programs to improve the competence of inspection and supervisory personnel. This includes technical training on ship stability inspections, structural integrity, fire extinguishing systems, and safety equipment in accordance with international standards.

- b. It is recommended that the Government allocate a budget for investment in more modern and sophisticated inspection facilities and equipment at the Sekupang Domestic Port in Batam City. This includes the latest technology for visual inspection using drones, automatic sensors for monitoring ship conditions, and an IT-based safety management system.
- c. It is recommended that the public, especially ship operators and crew, need to increase their awareness and understanding of the importance of maritime safety through active participation in education and training programs organized by the port authority and the government. Awareness campaigns through mass and social media, as well as regular training on safety procedures, use of safety equipment, and emergency management, are essential to building a strong maritime safety culture.

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