

JURIDICAL ANALYSIS OF THE IMPLEMENTATION OF PASSENGER AND CARGO SHIP SAFETY EQUIPMENT STANDARDS IN THE BATAM PORT AREA

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Abstract

Shipping safety is a fundamental aspect of sea transportation operations, especially for passenger and cargo vessels operating in strategic areas such as Batam Port. The 1974 International Convention for the Safety of Life at Sea (SOLAS) as a global legal instrument has been ratified by Indonesia and adopted into the national legal system through Law Number 17 Year 2008 on Shipping. However, the level of marine accidents that still occur and the findings of non-standard safety equipment on some ships indicate problems in the implementation of legal norms in the field. This study aims to analyze the legal regulation and implementation of safety equipment standards for passenger and cargo vessels in Batam Port area based on 1974 SOLAS Convention, as well as to identify obstacles and solutions for its implementation. The method used is legal research with normative juridical and empirical juridical approaches. Data were obtained through legal document studies and in-depth interviews with officials of the Batam Harbor and Port Authority Office (KSOP) and shipping industry players. The results showed that normatively, Indonesia already has adequate legal arrangements and is in line with international standards. However, at the implementation level, there are still normative (unsynchronized technical regulations), structural (limited human resources and facilities at KSOP), and legal culture (low awareness of business actors) obstacles. Therefore, it is necessary to increase supervisory capacity, harmonize national regulations with international practices, as well as legal education and shipping safety campaigns to realize effective and equitable implementation of ship safety equipment

Keywords: *Shipping Safety, Ship Equipment, 1974 SOLAS Convention, Batam Port, KSOP*

INTRODUCTION

Indonesia, as the world's largest archipelagic nation, has more than 17,000 islands connected by maritime transport. This makes shipping a key backbone for national and international connectivity. Therefore, shipping safety is a crucial factor, not only protecting the lives of passengers and crew but also playing a significant role in maintaining smooth logistics distribution and national economic stability (Nur Aripkiah, 2023). However, the reality on the ground shows that ship accidents remain frequent. A report by the National Transportation Safety Committee (KNKT) recorded an increase in maritime accidents, from 87 incidents in 2020 to 108 incidents in 2022. The main contributing factors are human error, the lack of seaworthiness of ships, and a lack of safety equipment that meets international standards (KNKT, 2023). This situation indicates serious gaps in the implementation of applicable regulations, particularly regarding ship safety equipment standards. At the international level, the 1974 International Convention for the Safety of Life at Sea (SOLAS) established minimum safety standards that all ships must meet. This convention regulates various technical aspects, from ship construction and rescue equipment to emergency communication systems. Indonesia ratified SOLAS 1974 through Presidential Decree No. 65 of 1980, which was later integrated into the national legal system through Law No. 17 of 2008 concerning Shipping. Article 5, paragraph (2) of this law affirms the government's obligation to ensure shipping safety, including supervision of ship seaworthiness (Wahyudi, 2019). Batam Port is one of the busiest international ports in Indonesia, strategically located along the Strait of Malacca shipping lane. This port serves passenger and cargo ships connecting with various domestic and international ports. Data from the Batam Harbormaster and Port Authority Office (KSOP) shows an annual increase in ship traffic of up to 15%, reflecting the high dependence of the national economy on this port

(KSOP Batam, 2023). However, increased shipping activity also increases the potential risk of accidents if safety standards are not consistently implemented. Previous research has provided a mixed picture regarding shipping safety issues. Fadhillah & Santoso (2020) found the main obstacle to SOLAS implementation at Tanjung Priok Port was limited human resources to conduct ship inspections. Meanwhile, Wahyudi (2019) highlighted the low awareness of ship owners regarding safety equipment in Sulawesi waters. Donald Tambunan (2024) added that administrative issues and the authority of the Port Authority (KSOP) also often lead to problems in law enforcement. However, studies focusing on the implementation of ship safety equipment at Batam Port are still minimal, despite the port's dense and complex international traffic. Given these conditions, a legal analysis of the implementation of ship safety equipment standards at Batam Port is crucial for assessing the effectiveness of existing regulations and identifying obstacles and appropriate solutions. This research is expected to provide theoretical contributions to the development of maritime law and practical benefits for port authorities, ship operators, and the public using naval transportation services. This study aims to analyze the legal regulation and implementation of safety equipment standards for passenger and cargo vessels in the Batam Port area based on the 1974 SOLAS Convention and identify obstacles and solutions for their implementation.

RESEARCH METHOD

This research uses both normative and empirical juridical approaches.

1. Normative Juridical Approach

This approach examines laws and regulations, international conventions, and legal doctrines related to maritime safety. The primary normative bases used are the 1974 International Convention for the Safety of Life at Sea (SOLAS), Presidential Decree of the Republic of Indonesia Number 65 of 1980 concerning the Ratification of SOLAS, and Law Number 17 of 2008 concerning Shipping. The analysis also includes the underlying technical regulations governing safety equipment standards for passenger and cargo ships.

2. Empirical Juridical Approach

To complement the normative study, this research was also conducted empirically through field data collection. Data were obtained through:

- a. In-depth interviews with officials from the Batam Harbormaster and Port Authority (KSOP) Office and shipping industry players.
- b. Direct observation of the condition of passenger and cargo ship safety equipment at Batam Port.
- c. Documentation in the form of inspection reports, maritime accident data, and monitoring records issued by relevant agencies.

3. Data Types and Sources

Primary data was obtained from interviews, observations, and official documents from the Batam Port Authority (KSOP). Secondary data was obtained from laws and regulations, international conventions, maritime law literature, and previous research results.

4. Data Collection Techniques

Data was collected through library research and field research. The former involved analyzing relevant legal and regulatory literature, while the latter involved interviews and direct observation.

5. Data Analysis

Data was analyzed using a qualitative descriptive method with a legal approach. Normative analysis was conducted to ensure the synchronization of national regulations with international standards (SOLAS 1974), while empirical analysis was conducted to assess implementation and obstacles encountered in the field. The results of the analysis were then used to formulate appropriate legal solutions to improve the effectiveness of ship safety equipment standards at the Port of Batam.

RESEARCH RESULTS

1. Legal Regulations on Ship Safety Equipment Standards

Normatively, Indonesia already has legal instruments aligned with international standards. The ratification of the 1974 SOLAS Convention through Presidential Decree Number 65 of 1980 has been integrated into national law through Law Number 17 of 2008 concerning Shipping. This regulation affirms that shipping safety is a state

responsibility by emphasizing the importance of ship seaworthiness, safety equipment, and routine pre-sailing inspections. Furthermore, technical regulations regarding safety equipment standards are also outlined in derivative regulations of the Ministry of Transportation, which stipulate the obligation for ships to have lifeboats, life jackets, fire extinguishers, emergency alarm systems, and maritime communication devices. Formally, these regulations are adequate and compliant with international standards.

2. Implementation of Ship Safety Equipment Standards at Batam Port

Empirical research shows that the Batam Harbormaster and Port Authority Office (KSOP) has exercised its supervisory authority through ship seaworthiness inspections and safety equipment certification. However, in the field, several passenger and cargo vessels still fail to comply with the requirements of the 1974 SOLAS standard fully. From observations and interviews with KSOP officials, the main obstacles to implementation are:

- a. Some vessels still operate with an inadequate number of life jackets and lifeboats for passenger capacity.
- b. Some safety equipment, such as fire extinguishers, is not functioning optimally due to a lack of maintenance.
- c. Low awareness of ship operators regarding the importance of safety equipment, often resulting in only formalities for document checks.

3. Implementation Barriers

The study found that obstacles to the implementation of ship safety equipment standards at Batam Port fall into three categories:

- a. Normative Barriers – the persistent lack of synchronization between national technical regulations and international provisions, as well as multiple interpretations in the implementation of rules.
- b. Structural Barriers—The limited number of supervisory personnel and inspection facilities at KSOP Batam results in suboptimal oversight.
- c. Legal Culture Barriers: Shipping business operators are not aware of and comply with the importance of shipping safety, particularly regarding investment in safety equipment.

4. Solutions Found

To address these obstacles, this study identified several necessary measures:

- a. Increasing supervisory capacity by adding human resources, equipment, and training for KSOP officers.
- b. Harmonizing national regulations to align with the international provisions of SOLAS 1974, to prevent overlapping or legal gaps.
- c. Increasing business awareness through ongoing outreach programs, legal education, and maritime safety campaigns.
- d. Strict law enforcement for vessels or operators that fail to comply with safety standards creates a deterrent effect and fosters a culture of law-abidingness in the shipping sector.

DISCUSSION

1. Legal Regulations on Standard Ship Safety Equipment

Normatively, Indonesia has a relatively comprehensive legal framework governing shipping safety. The ratification of the 1974 International Convention for the Safety of Life at Sea (SOLAS) through Presidential Decree No. 65 of 1980, which was later reinforced by Law No. 17 of 2008 concerning Shipping, affirms the government's obligation to ensure the safety of maritime transportation. This regulation is also detailed in derivative rules from the Ministry of Transportation, which mandate the provision of standard safety equipment, such as lifeboats, life jackets, fire extinguishers, and emergency communication devices (Wahyudi, 2019). However, despite the availability of legal instruments, this study found weaknesses in their implementation in the field. This situation indicates a gap between *das sollen* (what should be regulated by law) and *das sein* (what occurs on the ground). According to the theory of legal certainty (Mertokusumo, 2012), the law should provide consistent protection, but weak implementation indicates that legal certainty has not been fully realized. Several previous studies support this finding. Fadhillah & Santoso (2020) stated that although shipping safety regulations comply with international standards, oversight is weak due to limited human resources at Tanjung Priok Port. Research by Nur Aripkha (2023) emphasizes the importance of the government's role in ensuring safety equipment as part of the seaworthiness of ships. However, in practice, many ships still operate without adequate equipment. This indicates that implementation issues are not unique to Batam but are a national phenomenon.

2. Implementation of Ship Safety Equipment Standards at Batam Port

Field findings indicate that the implementation of safety equipment standards at Batam Port is suboptimal. While the Batam Port Authority (KSOP) has implemented supervision and certification, some passenger and cargo ships still do not meet SOLAS 1974 standards. For example, the number of life jackets often does not match passenger capacity, some lifeboats are poorly maintained, and fire extinguishers are no longer functioning optimally.

This analysis can be linked to Lawrence M. Friedman's legal system theory, which states that the success of legal implementation is determined by three elements: legal substance, legal structure, and legal culture (Friedman, 2001). In terms of legal substance, the regulations are adequate. A legal structure also exists through the KSOP (Indonesian Maritime Safety Authority) as a supervisory body. However, the legal culture of shipping operators remains weak, as some operators view safety equipment merely as a formality to pass inspections, rather than a fundamental safety requirement. The results of this study align with Wahyudi's (2019) study in Sulawesi, which highlighted low compliance by shipowners with safety equipment standards. Donald Tambunan (2024) added that administrative and bureaucratic aspects of document issuance often create legal loopholes, resulting in permits for ships that are not truly seaworthy. Meanwhile, research by Prasetya (2021) shows that this non-compliance has implications not only for human safety but also for economic losses due to delays in the distribution of goods. Therefore, implementation in Batam reflects a national problem of a structural and cultural nature.

3. Implementation Barriers

Barriers to the implementation of ship safety equipment standards in Batam can be categorized into three aspects:

- a. Normative: There is still a lack of synchronization between national and international regulations. For example, some national technical regulations have not wholly followed SOLAS updates, leading to multiple interpretations during supervision.
- b. Structural: Batam's KSOP faces limitations in the number of supervisors and inspection facilities, which hinder intensive supervision.
- c. Legal culture: Ship operators' awareness remains low. Many ship owners pursue only economic profit without considering safety aspects.

According to John Rawls' (1971) theory of justice, every passenger has a fundamental right to equal protection in terms of safety. However, when safety standards are not consistently implemented, this principle of justice is violated. In other words, implementation weaknesses are not only technical but also moral, legal, and ethical issues. Previous research has also found similar obstacles. Fadhillah & Santoso (2020) highlighted limited supervision at Tanjung Priok. Rahmawati's (2022) research at Makassar Port showed low operator compliance due to the lack of strict sanctions. Meanwhile, Syahril (2021) found that limited inspection facilities in coastal areas lead to uneven supervision.

CONCLUSION

1. Legal regulations regarding safety equipment standards for passenger and cargo ships in the Batam Port area are comprehensively regulated in the 1974 SOLAS Convention, which was ratified through Presidential Decree No. 65 of 1980 and adopted into the national legal system through Law No. 17 of 2008 concerning Shipping and its implementing regulations. These provisions emphasize the obligation of every ship to meet minimum safety equipment requirements, which is implemented by the KSOP Office as the port authority, with the aim of ensuring the safety of life and legal protection for shipping service users.
2. The implementation of ship safety equipment standards at Batam Port demonstrates that, normatively, they have been carried out in accordance with applicable legal provisions. However, empirically, discrepancies remain between administrative documents and the actual condition of ship equipment. KSOP Batam has carried out its supervisory and certification functions. However, limited personnel, high ship traffic, and low compliance among ship operators have hampered effective implementation in the field, as evidenced by primary data from observations and interviews.
3. The main obstacles in the implementation of ship safety equipment standards in the Batam Port area include gaps and overlapping regulations (normative obstacles), limited human resources and supervisory facilities (structural obstacles), and low legal awareness among shipping business actors (legal culture obstacles). To overcome these obstacles, strategic solutions are needed in the form of increasing the supervisory capacity of the KSOP, harmonizing national regulations with international standards, and maritime law education and shipping safety campaigns for all stakeholders to ensure effective implementation and fair legal protection.

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