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Implementation of ISPS *Code* to Prevent Security Threats of MT. Madelin Expo

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ABSTRACT

The ISPS Code *(International Ship and Port Security Code)* is an international code on the safety of ships and port facilities, where every ship and port of the member states of the convention is obliged to implement all the rules set out in the international convention on the safety of life at sea. This rule was enforced on July 1, 2004. The purpose of this study is to find out how the ISPS Code is implemented in MT. Medelin Expo to prevent threats that occur. This study uses qualitative research methods with data collection techniques through observation, interviews, documentation, and literature studies. The subjects in this study were 3 informants. The type of data used is primary data. The results of this study can be concluded that the formal implementation of the ISPS Code has been carried out according to procedures. However, implementation in the field still leaves a number of significant weaknesses. This can be seen from the weak access control, the poor night lighting system, and the lack of security training for all crew members and the *security level* status is not adjusted to the actual situation. In addition, there are several technical factors such as the unavailability of CCTV in critical areas, unsupportive communication equipment (HT), and uneven security awareness among *the crew* are the main causes of the incident. In addition, the *infrequent and monotonous* implementation of security drills also causes the *crew* to be less prepared to respond to real threat situations.
Keywords: *ISPS Code, Ship Security, Preventing Threats*

ABSTRAK

ISPS Code *(International Ship and Port Security Code)* ialah satu kode internasional tentang keamanan kapal dan fasilitas pelabuhan, di mana setiap kapal dan pelabuhan negara-negara anggota peserta konvensi wajib untuk melaksanakan segala aturan yang diatur dalam konvensi internasional tentang keselamatan jiwa di laut. Aturan ini diberlakukan 1 juli 2004. Tujuan penelitian ini adalah untuk mengetahui bagaimana penerapan ISPS Code di MT. Medelin Expo guna mencegah ancaman yang terjadi. Penelitian ini menggunakan metode penelitian kualitatif dengan teknik pengumpulan data secara observasi, wawancara, dokumentasi, dan studi pustaka. Subjek pada penelitian ini sebanyak 3 orang informan. Jenis data yang digunakan yaitu data primer. Hasil penelitian ini dapat disimpulkan bahwa penerapan ISPS Code secara formal telah dilakukan sesuai prosedur. Namun demikian, implementasi di lapangan masih menyisakan sejumlah kelemahan yang signifikan. Hal ini dapat dilihat dari lemahnya pengawasan akses, buruknya sistem penerangan malam hari, serta minimnya latihan keamanan bagi seluruh *kru* kapal dan status *security level* tidak disesuaikan dengan situasi aktual. Selain itu,

terdapat beberapa faktor teknis seperti tidak tersedianya CCTV di area kritis, alat komunikasi (HT) yang tidak mendukung, serta kesadaran keamanan yang belum merata di antara *crew* menjadi penyebab utama terjadinya kejadian tersebut. Selain itu, pelaksanaan *security drill* yang jarang dan monoton turut menyebabkan *kru* kapal kurang siap merespons situasi ancaman nyata.
Kata kunci: *ISPS Code, Keamanan Kapal, Mencegah Ancaman*

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1. INTRODUCTION

The maritime sector plays a strategic role in the global trading system because most of the international distribution flows depend on sea transportation. This vital position demands the implementation of strict security standards considering that ships and port facilities are vulnerable to various threats such as terrorism, smuggling, piracy, and sabotage. According to (Sari et al., 2019) Transportation is a system that has special facilities and certain flows and control systems that allow humans or goods to move from one place to another at all times with the aim of supporting human activities.

In response to the growing threat, the International Maritime Organization enacted the International Ship and Port Facility Security (ISPS) Code as an international regulatory framework governing ship and port security since July 1, 2004 (Public Relations & KSLN DJPL). The ISPS Code is designed to ensure early detection, prevention, and handling of security threats through structured and standardized procedures on all ships sailing internationally.

The application of the ISPS Code to tankers such as MT. Medelin Expo has a high level of urgency given the characteristics of a flammable and hazardous liquid charge. Threats are not only derived from external factors, but are also influenced by internal aspects such as the understanding of the crew, discipline in carrying out procedures, and the availability of supporting facilities on the ship. Previous research has shown that human resource competence and consistency in implementing ISPS Code procedures are still challenges in ship operations (Muammar & Mosyofa, 2024). In addition, the implementation of the ISPS Code in port facilities also faces structural and technical obstacles, which in some cases

cause the implementation of security standards to be not optimal (Premadi et al., 2022).

The results of field findings in MT. The Medelin Expo shows that the ship's security system still has significant weaknesses. The theft incident that occurred on May 15, 2024 when the ship docked in Belawan Anchorage, where the perpetrator managed to enter the ship and take a number of deck equipment without being detected, indicates that there are deficiencies in the supervision of access, lighting, and the implementation of guard procedures. The incident shows that the implementation of the ISPS Code on ships is not yet fully effective and requires a thorough evaluation to comply with international maritime safety standards.

Based on these incidents, this study aims to directly evaluate the effectiveness of the implementation of ISPS Code procedures in preventing security breaches in MT. Medelin Expo. This research is focused on assessing the crew's compliance with safety procedures, the adequacy of the surveillance and access control system, and the identification of factors that allow security gaps to occur during the ship docking. The results of the analysis are expected to produce strategic recommendations to strengthen ship safety systems in international shipping activities.

2. METHOD

This study uses a qualitative descriptive method to factually and objectively describe the application of the ISPS Code in preventing security threats without manipulating data (Darmawan & Ali, 2024). The location of the research is at MT. Medelin Expo, with research subjects including captains, Ship Security Officers (SSO), officers, and ship crews who are directly involved in the implementation of safety procedures. The research variables consist of: (1) the implementation of the ISPS Code, which refers to the implementation of security provisions in Parts A and B including access control, implementation of security levels, training and security drills as stipulated in the ISPS Code (Kensiwi, 2022); (2) threats, namely all forms of activities that have the potential to endanger the safety of ships and crew (Abdel & Karim, 2024); and (3) ship security, which refers to the effectiveness of the Ship Security Plan (SSP) in protecting the ship's crew, cargo, and facilities (Rosnani, 2024). Data was collected through direct observation of the implementation of safety

procedures, interviews with relevant parties, literature studies to strengthen the theoretical foundation, and documentation of ship safety records and documents. Data analysis is carried out through a continuous process of reduction, classification, presentation, and conclusion drawing from the data collection to the final stage, to find patterns, validate findings, and assess the effectiveness of ISPS Code implementation on ships.

3. RESULTS AND DISCUSSION

3.1. Research Results

1. Observation Results

Field observations were carried out at MT. Medelin Expo to see the implementation of the ISPS Code firsthand. The observational findings point to several important aspects:

a. Suboptimal Access Surveillance

At the time of the theft, the stern and manifold areas were not supervised by guards. The perpetrator managed to climb onto the ship through the anchor chain path without being detected. This shows weak access control in vulnerable areas. In addition, there are no special guards at points that have a high level of risk.

b. Limited Security Facilities and Infrastructure

Some of the CCTVs are in a damaged condition and have not been replaced because they are waiting for spare parts. Some important points such as the hull side and stern area do not have visual surveillance coverage. Night lighting is also minimal, especially in the manifolds and stern areas, making it easier for criminals to approach the ship without being seen. Communication devices (HT) have limited range and a fast battery drain, making inter-crew coordination not optimal in emergency situations.

c. Security Level Not Adjusted

Despite anchoring in a high-risk area, the ship remains within Security Level 1. There should be an increase in the level of security according to real-time risks to tighten surveillance procedures.

d. Security Drill Is Not Routine

Security exercises are not carried out consistently. Some drills are only carried out as administrative fulfillment so that crews are not used to facing real threats. As a result, the crew's response during the theft incident was not uniform; only one guard AB reacted quickly, while the other was slow to respond.

2. Interview Results

Interviews were conducted with three informants: Mualim 2, AB Jaga, and Mualim 1 (SSO). Key findings:

a. Equipment and Resource Constraints

All informants said that the CCTV was damaged, the HT was not optimal, and the number of crew was limited so that supervision did not always run optimally. Crews must set a strict schedule to keep all areas supervised.

b. Access Control Constraints

The crew had difficulty controlling the access to the ship, especially when there were strangers who forced them on board or pretended to know each other. Procedural errors such as crew not reporting when disembarking also increase safety risks.

c. Security Drill Inconsistent

Security drills have been carried out, but they are not routine and do not involve the entire crew. The exercises are generally just simulations of strangers on board, with no variation of other threat scenarios.

d. Low Security Awareness

Some crew members admit that night patrols are often a formality. There are hidden areas that are not thoroughly examined. The motivation and discipline of some personnel are still lacking, so they are unable to support the implementation of the ISPS Code to the maximum.

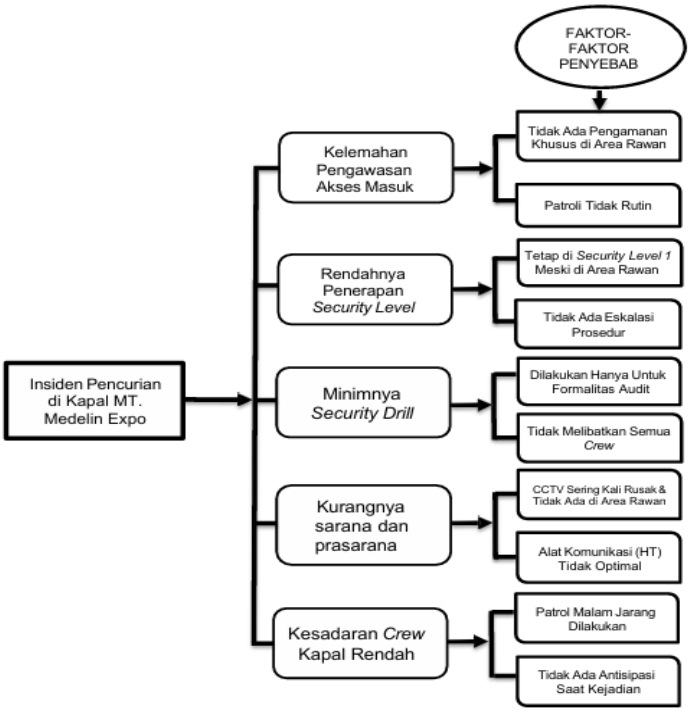

Figure 1. Thematic Diagram

Figure 1 shows that there was a theft incident in MT. The Medelin Expo is influenced by a number of key interconnected factors. Each of these factors is then explained in more detail as follows:

1. **Disadvantages of Access Control**

   Supervision of access to ships is not effective because of the absence of special guards in vulnerable areas and irregular patrols. This condition creates a gap for outsiders to board the ship undetected.

2. **Low Security Level Implementation**

   The ship remains at Security Level 1 despite being anchored in a high-risk area. The absence of increased security levels and escalation of procedures makes the security system not adaptive to actual threats.

3. **Minimnya Security Drill**

   Security exercises are rarely conducted and tend to only meet audit formalities. In addition, the drill did not involve the entire crew so that the preparedness of the crew was low when facing real events.

4. **Lack of Security Facilities and Infrastructure**

   CCTV is often broken and not available in vulnerable areas. Communication tools such as Handy Talkies are also not optimal. These

limited technical facilities reduce the ability to detect and respond to threats.

5. **Low Crew Awareness and Concern**

   Night patrols are rarely carried out and there is no anticipation when the incident takes place. The low vigilance of individuals also increases the chances of theft occurring.

3.2. Discussion

Based on the results of the research, it is known that the crew in general has understood the ISPS Code security system. However, the theft incident that occurred shows that the technical implementation in the field has not been running optimally. Some of the main factors that cause incidents include weak access control, inconsistency in Security Levels, inconsistent implementation of security drills, and limited supporting infrastructure.

Administratively, the implementation of the ISPS Code in MT. Medelin Expo has complied with standards, such as the existence of the Ship Security Plan (SSP), Ship Security Officer (SSO), and international ship safety certificate (ISSC). However, the suitability of the administration is not followed by operational effectiveness in the field, so there is a gap between the norms of the ISPS Code and its implementation. The ISPS Code emphasizes the basic principles of strict access control, security level adjustment according to risks, regular exercises, and the support of adequate security facilities such as CCTV, lighting, and internal communication (IMO, 2004).

The results of observations and interviews show fundamental weaknesses in access control. The incident on May 15, 2024 occurred because the perpetrator was able to climb onto the ship through the anchor chain on the side of the manifold without being detected. The lack of CCTV and lighting is a factor that increases the risk. In addition, communication tools such as HT do not function optimally so that coordination during emergencies does not go well, contrary to the principle of fast communication in the ISPS Code.

The implementation of security drills is also inconsistent. Exercises are only conducted occasionally and tend to be formal, so the crew is not trained to deal with real threats. This condition causes a delayed response when an incident occurs, even though ISPS Code B/13.6 requires periodic exercises.

In terms of Security Level management, the ship does not raise the security level even though it is in a vulnerable area such as Belawan Anchorage. The decision to remain at Level 1 shows the weakness of risk analysis on the part of the SSO. This is not in line with the principle of the ISPS Code which requires adjustments to the security level based on factual conditions.

The limitations of supporting facilities such as CCTV, lighting, and communication systems further worsened the situation. This condition is in line with the findings (Kusuma, 2024) that CCTV and SSAS are an important part of the ship's initial defense. In addition, the crew's understanding of the CNS procedure is still limited, especially in emergency decision-making. This finding is strengthened by research (Lutfiyah, 2022) and (Syam, 2024) which states that the weakness in the implementation of the ISPS Code also stems from the lack of safety culture and discipline of the crew. Syam emphasized the importance of realistic drills to form real preparedness.

Overall, weak access control, inaccuracy of Security Level, lack of training, lack of security facilities, and low security awareness of crew indicate that the implementation of ISPS Code in MT. The Medelin Expo is not yet effective. It is necessary to increase access supervision, optimize Security Levels, carry out routine drills, and improve security facilities so that similar incidents do not recur.

4. CONCLUSION

Based on the results of research in MT. Medelin Expo, it can be concluded that the implementation of the ISPS Code in MT. The Medelin Expo has administratively followed procedures, but its implementation in the field is still not effective. The theft incident on May 15, 2024 is clear evidence of the weak supervision and security system on the ship. The perpetrators managed to climb through an unofficial path without being detected, which shows a lack of night lighting, the unavailability of CCTV in important areas, and weak access control. In addition, crew safety awareness is still low, communication tools are inadequate, and security exercises are infrequent and unrealistic. Further evaluation revealed that there was a gap between the regulation and implementation of the ISPS Code on ships. The security system focuses more on the administrative aspect than on the implementation of operations in the field. The level of security of ships is not adjusted to actual conditions even though they are in vulnerable areas. Therefore,

it is necessary to increase security awareness, continuous training, strengthen guard procedures, periodic evaluation of SSP and add support facilities so that ship protection against external threats can run effectively and prevent the recurrence of similar incidents in the future.

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