

## OPTIMIZATION OF THE USE OF OCCUPATIONAL SAFETY TOOLS IN SV. SEA WAVE

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### ABSTRACT

This research is motivated by the low awareness and discipline of the SV crew. Sea Wave in the use of occupational safety equipment (PPE) when carrying out tasks, which can increase the risk of work accidents. This study aims to determine the use of occupational safety equipment in SV. Sea Wave. The research method used is qualitative descriptive with observation, interview, and documentation techniques. Data were obtained through sea practice for 1 year and 29 days on the AHTS SV ship. Sea Wave, then analyzed descriptively to describe the actual conditions of PPE use, the implementation of safety meetings and drills. The results of the study show that the optimization of the use of occupational safety tools in SV. Sea Wave has not been achieved to its fullest. It was found that work safety equipment, such as safety glasses, were in unsuitable conditions and inadequate, so the crew did not use them. In addition, the implementation of safety meetings and drills has not been carried out consistently, and the supervision carried out has not touched the overall change in the behavior of the crew. Several steps must be taken to prevent work accidents on board, namely by implementing procedures for the use of work safety equipment, supervision of the use of PPE, evaluating safety meetings and drills regularly, and checking the availability and feasibility of safety equipment.

**Keywords:** Optimization, Use, Work Safety Tools.

### ABSTRAK

Penelitian ini dilatarbelakangi oleh masih rendahnya kesadaran dan kedisiplinan awak kapal SV. Sea Wave dalam penggunaan alat keselamatan kerja (APD) saat melaksanakan tugas, yang dapat meningkatkan risiko terjadinya kecelakaan kerja. Penelitian ini bertujuan untuk mengetahui penggunaan alat keselamatan kerja di SV. Sea Wave. Metode penelitian yang digunakan adalah deskriptif kualitatif dengan teknik observasi, wawancara, dan dokumentasi. Data diperoleh melalui praktek laut selama 1 tahun 29 hari di kapal AHTS SV. Sea Wave, kemudian dianalisis secara deskriptif untuk menggambarkan kondisi aktual penggunaan APD, pelaksanaan safety meeting dan drill. Hasil penelitian menunjukkan bahwa optimalisasi penggunaan alat keselamatan kerja di SV. Sea Wave belum tercapai secara maksimal. Ditemukan bahwa alat keselamatan kerja, seperti safety glasses dalam kondisi tidak layak pakai dan kurang memadai, sehingga awak kapal tidak menggunakannya. Selain itu, pelaksanaan safety meeting dan drill belum dilakukan secara konsisten, serta pengawasan yang dilakukan belum

menyentuh perubahan perilaku awak kapal secara menyeluruh. Beberapa langkah yang harus dilakukan untuk mencegah kecelakaan kerja diatas kapal, yaitu dengan implementasi prosedur penggunaan alat keselamatan kerja, pengawasan terhadap penggunaan APD, evaluasi safety meeting dan drill secara rutin, serta memeriksa ketersediaan dan kelayakan alat keselamatan.

**Kata kunci:** Optimalisasi, Menggunakan, Alat Keselamatan Kerja.

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## 1. INTRODUCTION

The implementation of Occupational Safety and Health (K3) is a vital aspect in the shipping world, considering that the work environment on ships has high risks due to the use of heavy equipment, exposure to chemicals, and unpredictable weather conditions. Compliance with safety procedures, especially the use of personal protective equipment (PPE), is an obligation for all crew members (ABK). However, based on the author's observations during sea practice, there are still crew members who do not use PPE completely due to reasons of discomfort, habit, or consider light work.

This condition has the potential to pose serious dangers and shows the need to increase awareness of occupational safety. *The International Safety Management (ISM) Code* as part of SOLAS *Chapter IX* regulates shipping companies' obligations to provide appropriate PPE and ensure seafarers understand and be disciplined in their use. Therefore, this study focuses on optimizing the use of occupational safety tools in SV. Sea Wave, with the aim of identifying the factors that cause low awareness of the use of PPE and formulating strategic steps to form a safe work culture and minimize the risk of accidents on board.

Based on the description of the research background, the formulation of the problem presented in this thesis is how to optimize the use of work safety tools in SV. Sea Wave?

## 2. METHOD

The research method used in this study applies case studies in a qualitative framework. Sugiyono (2023) stated that the qualitative approach aims to understand the phenomenon in depth by considering the context and perspective of the participants. From the above opinion, it can be concluded that the case study method is the process of seeking knowledge/cases to investigate and examine phenomena that occur in the real world.

According to Sugiyono (2018), the definition of operational refers to the elaboration of variables by providing specific meanings, explaining related activities, and establishing the necessary measurement procedures.

The techniques during the recording and analysis of field information that will be carried out are planned using qualitative research by adjusting the conditions in the field. So that the important components in this study include:

a. Observation

Observations are carried out directly by researchers during sea practice on SV ships. Sea Wave. Researchers observed crew members using work safety equipment (PPE) in their daily activities. This technique is used to obtain factual data on work behavior, discipline, and the actual condition of safety equipment on board.

b. Observational

Interviews were conducted directly by researchers during sea practice on SV ships. Sea Wave. Researchers observed how crew members used work safety equipment (PPE) in their daily activities. This technique is used to obtain factual data on work behavior, discipline, and the actual condition of safety equipment on board.

c. Documentation. The documentation study is carried out by examining documents related to work safety on ships, such as inventory lists of work safety equipment, safety meetings and drills, safety manuals (Safety Management Manual), and photos of safety activities. This technique is used to reinforce the findings from observation and interview results, as well as as a form of data triangulation to increase the validity of the research.

Sugiyono (2023) explained that data analysis techniques are activities of processing and organizing data from interviews, field notes, and documentation in

a structured manner to increase understanding of data and present it as research findings. The author's technique uses a qualitative descriptive analysis method, which is an analysis technique without calculating numbers. This method processes and presents information in the form of a more meaningful and easy-to-understand description. The descriptive analysis aims to obtain an overview of aspects related to the focus of the research.

- a. Data Collection
- b. Data Reduction
- c. Display Data
- d. Verification and Affirmation of Conclusions

### **3. RESULTS AND DISCUSSION**

#### **3.1 Research Results**

Marine practice research on board the AHTS SV SEA WAVE ship, is a ship owned by the Sea Eagles Shipping Company I.I.C. The researcher carried out marine practice as a *Cadet Deck* for 1 year and 29 days, from November 27, 2023 to December 26, 2024.

##### **1. Procedure for Using the Tool**

###### **a. Safety Glasses**

The results of observations show that the use of *safety glasses* has become a standard procedure in risky work areas such as open decks. However, in SV. *Sea Wave* found a case of a crew member who suffered an eye injury during *chipping* because he did not use *safety glasses*. The reason is that the number of protective glasses in good condition is insufficient, some lenses are opaque and scratched, so that crew members continue to work without protective equipment.

###### **b. Safety Meeting**

On March 7, 2024, when the SV. *Sea Wave* sailed from Tanajib Port to Marjan Oil Field, ship maintenance activities did not begin with a *safety meeting*. As a result, the deck crew did not receive clear briefings on work procedures and safety, so the work did not run optimally.

###### **c. Regular Drill Implementation**

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*The safety drill has been carried out on a scheduled basis under the responsibility of Mualim I as Safety Officer. However, only about 30% of crew members consistently use PPE in their daily work. Most only obey during the drill and ignore it after completion, even though the benefits of PPE have been explained.*

## 2. Work Supervision Procedures

### a. Briefing Before the Activity

Before working in a risky area, all crew members attended a *briefing* explaining the function of *safety glasses* to protect the eyes from the dangers of debris and chemical splashes.

### b. Direct Supervision During Activities

The Chief Officer conducts direct supervision and gives reprimands for crew members who do not wear or remove *safety glasses* without permission. A frequent violation is removing the tool due to foggy lenses.

### c. Evaluation and Follow-up

Evaluations are carried out periodically to ensure compliance with the use of PPE. Similar violations were still found, indicating the need for increased discipline and stricter supervision.

## 3.2 Discussion

Based on the results of research on the SV. Sea Wave, the implementation of occupational safety is an important part of the shipping safety management system which refers to the International Safety Management (ISM) Code. However, the results of interviews and observations with Skipper and Mualim 1 show that there is a discrepancy between the written policy and the implementation in the field.

Minor accidents such as eye injuries due to not wearing safety glasses indicate that the system has not been implemented optimally. Although written procedures already exist, realization in the field is still lacking due to the availability of equipment, crew discipline, and weak supervision.

Prevention of work accidents is carried out through the following steps:

### 1. Implementation of Personal Protective Equipment (PPE) Procedures

Most crew members do not understand the function and how some important components work, such as *the painter line* and *hook release*.

This inability to execute the drill is longer, as the lifeboat lowering process is often stopped to correct procedural errors. This is marked by several ratings who are confused about the *lifeboat lowering* procedure so they find their own way to lower and group in helping other crew members.

## 2. Supervision of PPE Use

Supervision is carried out through *briefings* and direct inspections, but it has not been effective. Violations such as removing PPE because it is uncomfortable still often occur. Supervision is still verbal and has not been accompanied by recording or sanctions, so it is necessary to strengthen the discipline system and formal follow-up according to SMS.

## 3. Safety Meeting and Drill Evaluation

*Safety meetings* are routinely held once a month, but sometimes they are not held before the work is risky. This lowers crew coordination and compliance. *Safety drills* have been scheduled, but they are still a formality; some crew members have not implemented them in their daily work.

## 4. Safety Device Availability and Eligibility Check

Some PPE such as *safety glasses*, *helmets*, *leather gloves*, and *safety harnesses* are in unsuitable condition. Only 3 out of 10 *safety glasses* are good; helmets and *harnesses* have damage to the safety straps and foam. This condition reduces crew compliance in the use of PPE.

## 4. CONCLUSION

The results of the study show that the optimization of the use of occupational safety tools in SV. Sea Wave has not been achieved to its fullest. Some safety devices, such as *safety glasses*, were found to be in improper and inadequate conditions so that the crew was reluctant to use them. In addition, the implementation of *safety meetings* and *drills* has not been consistent, while supervision has not been effective in forming safe work behavior among the crew.

To improve work safety on ships, it is necessary to implement strict procedures for the use of PPE, routine supervision of crew compliance, periodic evaluation of *safety meetings* and *drills*, as well as continuous checks on the feasibility and availability of safety equipment.

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