

Efforts To Increase Vigilance In Mv. Antarctic Dream To Avoid Work Accidents

*Basra Edani¹, Haerani Asri², Indra Farman³,

¹ Diploma IV Program, Politeknik Pelayaran Makassar, Makassar, Indonesia

² Department of Nautical, Politeknik Ilmu Pelayaran, Makassar, Indonesia

* **Corresponding Author:**

Basra Edani

Diploma IV Program, Politeknik Ilmu Pelayaran Makassar, Makassar, Indonesia

Jl. Tentara Pelajar No. 173 Makassar, 90172, Indonesia

Email: basraedani80@gmail.com

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ABSTRACT

The risk of accidents in the Ship Work Environment is very high, mainly caused by negligence, lack of discipline in the use of personal protective equipment (PPE), and weak compliance with safety procedures. This study aims to analyze effective pre-work procedures to prevent work incidents and accidents on top of MV. Antarctic Dream. Conducted through marine practice for more than 12 months, the study used observation, interview, and documentation methods, the results of which showed that incidents occurred because crews failed to check the condition of the equipment, did not use adequate PPE, and operated the equipment without safety, reflecting a low safety culture. Therefore, it is concluded that increasing crew vigilance is crucial and can be achieved through continuous safety training, strict implementation of *International Safety Management (ISM) Code* procedures, supervision of work discipline, and provision of proper safety equipment, where strengthening safety discipline and culture is key to reducing the risk of accidents, maintaining operational efficiency, and protecting the safety of crew lives.

Keywords: Maritime Safety, Work Accident Prevention, Crew Alertness, Safety Management

ABSTRAK

Risiko Kecelakaan di Lingkungan Kerja Kapal sangat tinggi, utamanya disebabkan oleh kelalaian, kurangnya disiplin penggunaan alat pelindung diri (APD), dan lemahnya kepatuhan terhadap prosedur keselamatan. Penelitian ini bertujuan menganalisis prosedur pra-kerja yang efektif untuk mencegah insiden dan kecelakaan kerja di atas MV. Antarctic Dream. Dilaksanakan melalui praktik laut selama 12 bulan lebih, penelitian menggunakan metode observasi, wawancara, dan dokumentasi, yang hasilnya menunjukkan bahwa insiden terjadi karena kru gagal memeriksa kondisi alat, tidak menggunakan APD yang memadai, dan mengoperasikan peralatan tanpa pengaman, mencerminkan rendahnya budaya keselamatan. Oleh karena itu, disimpulkan bahwa peningkatan kewaspadaan kru sangat krusial dan dapat dicapai melalui pelatihan keselamatan yang berkelanjutan, penerapan ketat prosedur *International Safety Management (ISM) Code*, pengawasan disiplin kerja, serta penyediaan peralatan keselamatan yang layak, di mana penguatan disiplin dan budaya keselamatan adalah kunci untuk menekan risiko kecelakaan, menjaga efisiensi operasional, dan melindungi keselamatan jiwa awak kapal

Kata Kunci: Keselamatan Maritim, Pencegahan Kecelakaan Kerja, Kewaspadaan Kru, Manajemen Keselamatan

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1. INTRODUCTION

Washing Safety at sea is a top priority in the maritime world, where the implementation of international regulations such as SOLAS 1974 aims to protect seafarers. However, the work environment on ships is often colored by a high risk of accidents, the majority of which are caused by the negligence of the crew, lack of discipline in the use of personal protective equipment, and weak implementation of occupational safety procedures, even though strict compliance is absolute for efficiency and safety. Accidents, which are often dominated by cases such as slips, cause not only non-economic losses (injuries) but also economic losses (equipment breakdowns and production stunts). Based on the author's experience during practice at MV. Antarctic Dream, where there were serious incidents involving fitter decks due to negligence and lack of vigilance when using cutting tools, this study became relevant. By analyzing incidents that occurred due to the lack of safety awareness of the crew, this thesis aims to analyze efforts to increase vigilance in MV. The Antarctic Dream to reduce work accidents, ensure worker survival, and support increased productivity and operational stability.

2. METHOD

This study uses a qualitative approach with a case study type to delve deeply into work accident prevention efforts on board, where the operational focus is on crew vigilance (as a level of preparedness and preventive measures) and accident prevention (as a series of planned efforts to reduce risk through training, provision of facilities, and supervision). This research was carried out on MV. ANTARCTIC DREAM during a 12-month maritime practice period and relies on triangulation data collection techniques, including direct observation of crew behavior and safety system implementation, documentation of existing ship accident reports and data,

and structured interviews with crew members. The collected data is then qualitatively descriptively analyzed through the three main steps of the Miles and Huberman model: Data Reduction (summarizing and systematization), Display Data (classification and presentation), and Conclusion/Verification (drawing conclusions through comparison and testing of data objectivity).

3. RESULTS OF RESEARCH AND DISCUSSION

3.1. Research results

This research was carried out on board the MV. ANTARCTIC DREAM, operated under the management of Sinbad Navigation Company DMCC, a globally certified maritime and logistics company (ISO 9001, ISPS Code) focused on Floating Armoury services and personnel transfers. During the period of sea practice (18 January 2024 – 27 January 2025), this study identified crucial safety-related problems, culminating in a serious accident that occurred on 26 April 2024 in the Arabian Sea, involving a fitter deck who was seriously injured in the cheek by a cutting tool (grinder).



Figure 1. Tools and person injured

Based on observations, interviews with the Second Officer and Bosun, as well as chronological analysis, the accident was caused by several interrelated fatal factors: negligence at work because the fitter did not check the condition of the grinder (which turned out to be cracked); safety device factors where grinders are used without standard wheel guards and workers wear only non-standard plastic glasses; and the condition of work equipment that is generally less feasible, where the demand for adequate equipment to the company has not been met. This incident clearly confirms the low vigilance and safety culture supported by management's failure to provide safe facilities.

3.2. Discussion

Efforts to prevent accidents at MV. The ANTARCTIC DREAM must be focused on strengthening behavioral factors, especially the problem of Lack of Discipline and improving Safety Management. Undiscipline, shown through the neglect of Personal Protective Equipment (PPE) and Standard Operating Procedures (SOPs), is a major trigger for accidents in high-risk ship work environments. To overcome this, it is necessary to implement strict supervision, continuous coaching, and strict sanctions to instill the value of discipline as part of a culture of mutual safety. In addition, it is necessary to strengthen Safety Management through the strict implementation of the Safety Management System (SMS), in accordance with the ISM Code standards. This SMS enhancement includes pre-job risk assessment, clarifying safety responsibilities, and training on safe work procedures and emergency handling. The combination of high discipline and a robust safety management system will detect potential work negligence early, ensure crews are alert, and significantly reduce the number of accidents.

The second prevention pillar is the handling of technical and environmental factors through increased Tool Availability and Lack of Maintenance on work equipment. The availability of complete, standardized, and ready-to-use safety equipment (such as PPE, fire extinguishers, and medical equipment) is an absolute requirement, which also requires regular supervision, inspection, and training regarding their use. Furthermore, the case of accidents due to the rupture of the grinding eye shows that Lack of Care of the work equipment is a direct source of danger. Therefore, it is necessary to improve planned maintenance and pre-use inspection (before use) on all technical tools (grinding, welding, drilling). This procedure should include checking the function, completeness of safety components (such as wheel guards), cleaning, lubrication, and storage in accordance with standards. Optimal maintenance will extend the life of the tool and reduce the risk of sudden technical failure during operation.

This effort must be closed by increasing Knowledge Related to Safety Equipment which is the key to the successful use of tools and systems. This knowledge includes an in-depth understanding by the entire crew about the type, function, correct way of use, to emergency procedures and basic maintenance of PPE and technical tools. Lack of knowledge is often the main cause of crew

accidents: not knowing how to use the guard correctly or not recognizing signs of tool damage. For this reason, continuous technical training on the safe use of work tools must be carried out periodically, complemented by a brief pre-employment briefing (JSA/JSA-T), and manual availability at the job site. By integrating behavioral discipline, a robust management system, the availability of well-maintained tools, and adequate knowledge, MV. ANTARCTIC DREAM can create an effective and professional safety culture.

4. CONCLUSION

Based on the results of the study, it is concluded that effective efforts to prevent work accidents at MV. The ANTARCTIC DREAM must be comprehensive, including improving crew work discipline, strict implementation and supervision of safety procedures, as well as the provision and maintenance of proper Personal Protective Equipment (PPE) and work equipment. In line with this conclusion, it is recommended to the Captain to routinely and systematically report the condition of damaged work and safety tools to the company (Owner) as a basis for the procurement and updating of quality equipment and in accordance with international shipping standards. In addition, it is necessary to emphasize the improvement of discipline in the use of PPE among all crew members (Able Seamen), which must begin with strict instructions from officers to always apply the principle of prudence, use PPE (Personal Protective Equipment) correctly, and carry out JSA (Job Safety Analysis) before starting any work.

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