

Implementation of the ISM Code for MV Ships. Eastern Fair at PT Pelayaran Multi Jaya Samudera Belawan

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Abstract. This paper aims to investigate the Implementation of the ISM Code on the MV Ships. Eastern Fair at PT. pelayaran Multi Jaya Samudera Belawan. In writing this paper, the author utilizes methodology, during the Onshore Practice, the author collects materials from field observation methods and library methods. This is intended to gain a deeper understanding of the Implementation of the ISM Code on the MV Eastern Fair Ship at PT. Pelayaran Multi Jaya Samudera Belawan. The ISM Code is an International regulation developed by the International Maritime Organization (IMO) to ensure the safety of ship operation and the protection of the marine environment. By integrating the principles of the ISM Code into their operations, shipping companies can create a safer and more efficient environment for both ship crew and onshore personnel. Safety onboard is a shared responsibility. Safety plays a crucial role in the overall operation of ships. Facts show that as much as 80% of all accidents can be attributed to human error. Furthermore, about 75-80% of these human errors can be linked to poor management systems. Safety encompasses the ship, crew, cargo, and the marine environment. The Implementation of the ISM Code plays a crucial role in ensuring that everything runs smoothly in terms of safety.

Keywords: ISM Code; Crew; Safety

INTRODUCTION

The operation of Commercial Shipping is a unique and highly complex form of economic enterprise governed by a number of national and international laws and conventions. Regulating the technical components of shipping, however, can only ensure that ships are operated safely and without producing pollution. Ultimately, the owner of each ship bears primary responsibility for the management and safety of its operations, even if the captain is over the safety of the ship as well as the crew.

"It is known that about 80% of all ship accidents are caused by human error, the fact shows that 75-80% of human errors are caused by poor management systems" (Handoyo, 2016). The underlying fact that human actions and omissions contribute to any actual accidents including those involving structures or equipment means that all shipping companies must work to reduce the number of human decision-making errors that could directly or indirectly cause accidents or pollute the ocean.

The IMO's endorsement of the ISM Code reflects the objectives of the duties of IMO member states. Shipping companies have built onboard management systems to implement SOLAS, MARPOL, ISM Code, STCW and other national and international agreements. By drawing up corporate management requirements for ship operations with respect to safety and

pollution control, and for implementation in Safety Management Systems, the ISM Code creates international standards for ship safety management and operations.

So the task of shipping companies involves continuous efforts in providing understanding to ship crews regarding safety practices, by applying the ISM Code on board. With a high level of work safety, it will encourage morale that supports growth and increased productivity, as well as advancing the maritime sector. Companies need to design a management system capable of promoting good and close cooperation between land management and on-board management.

The author wrote a paper entitled "Implementation of the ISM Code of MV Ships. Eastern Fair at PT. Pelayaran Multi Jaya Samudera Belawan" because of how crucial it is to implement the ISM Code in the shipping industry. This report is written information from lectures and data from PT. Multi Jaya Samudera Belawan Cruise.

THEORETICAL FRAMEWORK

1. According to Agustino (2017: 133) implementation is an abstract or performance of a policy implementation which is basically carried out deliberately to achieve good performance.
2. The International Mangement Code for the Safe Operation of Ships and for Pollution Prevention (international Safety Management (ISM) Code) was adopted by the Organization by resolution A.741(18) and became mandatory by virtue of the entry into force on 1 July 1998 of SOLAS chapter IX on Management for the safe operation of ships. The ISM Code Provides an International standard for the safe management and operation of ships and for pollution prevention (ISM Code 2018 Edition).
3. According to Dwikie (2017) the ISM Code is a management and environmental standard that is implemented not on a voluntary basis, but is a management standard that is required through statutory regulations and other requirements.
4. The International Safety Management Code (ISM Code) is a structured and documented system that enables company personnel to effectively implement company safety and protection policies. (D. Lasse, 2016).
5. According to Law Number 17 of 2008 concerning Shipping, a "ship" is a water vehicle of a certain shape and type, which is driven by wind power, mechanical power, other energy, towed or towed, including vehicles with dynamic support capacity, vehicles under the surface of the water. , as well as floating equipment and floating buildings that can move around.

6. According to Republic of Indonesia Law No. 17 of 2008 article 1 concerning General provisions, point 32 concerning the safety and security of commercial shipping is a unit consisting of water transportation, ports, safety and security, as well as maritime environmental protection.
7. According to Law Number 17 of 2008 at point 42, it is explained that ship safety is: the condition of the ship which meets the requirements for materials, construction, building, machinery and electricity, stability of the structure and equipment, including auxiliary equipment and radio, ship electronics, which is proven by a certificate after testing.

RESEARCH METHODS

1. Field Reseach

Field researcher is an implementation that collects data by carrying out land practice activities on research objects with the company. Conducted to find out how the implementation of the ISM Code on board, with this the author also conducted research at PT. Multi Jaya Samudera Belawan.

Here in collecting data, the author approaches related parties and is considered interested and the problem studied with the following techniques:

a. Interview

Here the author conducts interviews with competent parties in accordance with the associated period, specifically with Designated Ashore (DPA) is a person assigned on land with direct access to Top Management and has responsibilities and interviews with types of Officers (Master, Chief Officer, Chief Engineer, and Second Engineer) ship officers, which are explained where on this occasion the author visited the MV ship. Eastern Fair.

b. Observasi

Making direct observations of the object of the problem being investigated, on this occasion the author made direct observations on the MV ship. Eastern Fair. In this process, the author can gain direct understanding and knowledge of the navigation tools and safety equipment contained on board the ship officer ship explaining the functions and uses of each equipment in detail.

2. Library study

Through this method, the author gets data by reading books and journals related to the discussion of the author's paper. This method helps researchers understand terms and understandings that cannot be explained in field research.

RESULT AND DISCUSSION

Implementation of ISM Code MV Ship. Eastern Fair

The International Safety Management Code (ISM Code) is an International Safety Management Standard for the safe operation and business of pollution at sea. The purpose of the implementation of the ISM Code is to ensure safety at sea, avoid accidents that can cause casualties and prevent damage to ships that can pollute the ecosystem of the marine environment.

Crews have a duty to enforce the ISM Code to prevent environmental degradation and to establish and ensure the realization of efficient management activities on board and not just formalities. The implementation of the ISM Code consists of understanding, implementing and archiving.

1. Understanding

In understanding, the crew is required to be proficient in defining what the ISM Code is and the importance of the MV ISM Code Implementation. Eastern Fair at PT. Multi Jaya Samudera Belawan Cruise, namely by:

- 1) Strive for the habit of diligently reading and verifying the latest edition of the ISM Code, by keeping copies of the ISM Code books in an area that can be easily accessed by the ship's crew.
- 2) The crew may be more motivated to continue understanding and learning the ISM Code if the captain frequently asks them about it. The principles of the International Safety Management (ISM) code are :
 - a. Plan what you do
Internal planning involves developing procedures and instructions to be implemented.
 - b. Do what you plan
The stage at which procedures are implemented or implemented, such as training or drilling takes place as well as the maintenance of the vessel.
 - c. Record it
The inspection phase involves internal safety audits, review of the Captain, analysis of nonconformity reports and hazardous events and use other methods to verify effective implementation of the ISM Code

2. Implementation

Implementation is an action or a plan carried out on a ship that has been carefully prepared and detailed, Implementation is usually done after the planning is considered ready. In the

implementation of the ISM Code everything has been designed systematically and organized and in accordance with the ISM Code.

1) Drill Program

The term "program" refers to the required training schedule, which includes technical components to be completed in accordance with international rules and classification regulations. Drill is a very routine activity carried out as a useful way to improve capabilities during drills, referring to the practice or exhibition of the ability to operate firefighting safety equipment, as well as preventive measures against environmental pollution, to deal with emergency scenarios involving ships. To increase crew awareness of potential hazards involving the ship and crew, as well as to increase awareness and response time in identifying potential emergency situations, crews train and conduct exercises to create procedures that describe emergencies on board. Once every one (1) month, the ship conducts exercises or training sessions which include the following:

a. Firefighting role training

Fire is a catastrophic incident caused by the presence of fire, which can endanger property and human safety. Firefighting role training involves a series of simulations showing firefighting actions and casualty evacuation procedures. Steps and procedures in conducting fire risk management exercises:

- Sound the fire alarm (1 short followed by 1 long).
- Contact Nahkoda and tell them about the conditions in the engine room.
- Firefighting squads are at the scene of the fire and carry out fire method fighting.
- Turn on the lighting on the deck.
- Ventilation, sky light, waterlight doors and automatic fire doors closed.
- Check for crew members who may be injured or not found.

b. Pollution Management Training

Mualim I conducted regular training to overcome pollution periodically under the supervision of the captain. Every month, pollution drills are conducted to ensure that all crew members have a good understanding of how to use pollution control equipment, including knowing where the

equipment is stored. Pollution handling training is very important and urgently needed, especially to overcome:

- Leakage at the time of moving oil (cargo/ bunker fuel).
- Oil/ fuel tank overflow.
- Leakage of pipes or oil tanks, cargo/ fuel.

c. Lifeboat role training

Lifeboats, also known as life boats, are equipment used for evacuation from ships in emergencies and can accommodate up to 25 passengers. Lifeboat role exercises involve simulations where crew practice lowering lifeboats into seawater, and each crew member is expected to engage in abandonment exercises.

d. Emergency equipment trial training

Emergency equipment testing is a practice that involves ship crews in operating emergency equipment. The goal is to provide an understanding to the crew on how to use emergency equipment on board so that they become familiar and more familiar with the emergency equipment in emergency situations.

Emergency equipment on board includes:

- Quick Closing Valve
Quick Closing Valve Or also called Emergency Shut Off Valve is a valve designed to close quickly and automatically when an emergency occurs, this valve is often used in piping systems to maintain safety and prevent leaks, usually attached to the fuel tank on the ship.
- Emergency Stop Blower
Is an emergency device used to stop blower operation quickly and automatically in emergency situations, this tool must be placed in a strategic position or in an easily accessible area.
- Emergency fire Pump
Is an emergency pump installed on the ship and serves to supply water or other fire extinguishing agents to the fire extinguishing system, a fire extinguisher that must be on board and is usually stored in a strategic location and easily accessible on board.

- Emergency Light

Emergency lights are installed in strategic locations on the ship. These lights are designed to turn on automatically when a power outage occurs or in other emergency situations.

- General Alarm

General Alarm on board is an emergency warning system used to notify the crew of an emergency or other critical situation, a general alarm on board sounds to notify the crew that an emergency situation has occurred such as a fire, collision or when an order to abandon ship.

e. Emergency steering training

The ship's rudder is one of the crucial equipment on the ship because it plays an important role in maintaining the safety of the ship. Emergency rudder is an electromechanical device that directs a ship from one port to another in an emergency. Emergency rudder training is conducted to train crews to be skilled at manual control of the ship's rudder in emergency situations where the remote control system fails. In this exercise, the crew will use an emergency steering system to manually control the ship's rudder from the wheelhouse in an emergency situation.

f. Report on the rescue drill of people falling overboard

This exercise aims to make the ship's crew understand the procedures to follow if someone falls overboard. The captain or officer of the ship must also act by maneuvering the ship and throwing life buoys.

g. Enclosed indoor rescue drills

An enclosed space refers to a space that is usually sealed such as a cargo room, ballast tank, or other similar space. Drills to rescue victims from enclosed spaces are carried out regularly by Nahkoda, Mualim II and Masinis II. This exercise can be performed in conjunction with the use of personal safety equipment.

2) Safety Meeting

Safety Meeting is a routine meeting held once a month, attended by the Nahkoda and all ship crew. one of the programs that can be implemented by the Nahkoda to increase the awareness of the ship crew about the importance of using personal protective equipment is to hold socialization through safety meetings regularly and

continuously. The Safety Meeting discusses the findings, steps, and strategies that will be taken in the future related to various problems that may be faced on the ship, such as the health, security, and safety of the ship's crew, as well as efforts to prevent work accidents.

3) Ship maintenance and maintenance

Ship maintenance procedures, equipment, and machinery are a series of steps taken to maintain, repair, and ensure that everything is always ready to be used effectively and efficiently in accordance with functional and quality standards.

In the application of the ISM Code at PT. Multi Jaya Samudera Belawan Shipping, to maintain the condition of the ship remains optimal, a Planned Maintenance System (PMS) is applied. These systems can be paper-based systems or devices that allow ship owners or operators to carry out scheduled ship maintenance based on the requirements of the classification body or vessel.

The objectives of the Planned Maintenance System (PMS) include:

- Ensure that all ship maintenance is carried out by the system
- To establish clear boundaries between maintenance carried out on land
- To improve the safety and reliability of the ship
- Avoid disruption when the ship operating, having a planned maintenance system or planned maintenance system on board is currently mandatory in accordance with the ISM Code

3. Reporting

A report is a form of conveying notification information, or accountability regarding various activities on the ship, including drills, repairs, maintenance, and safety socialization. The implementation of the ISM Code is carried out on ships through the preparation of monthly, quarterly, and semesterly reports which will be submitted to DPA as a liaison between the ship and the company.

4. Archiving

Archiving is the process of securely storing information in the form of documents. Archival documents can be in the form of Hardcopy stored on ships or in companies, or in the form of Softcopies stored on computers. One of the archived documents is IMS Code which is stored in Softcopy form on a computer.

Designated Person Ashore (DPA)

Designated Persons Ashore (DPA) is a mandatory position in the Safety Management System of a shipping company, which can be held by one or several individuals who are responsible for bridging the relationship between the company and the ship's crew. The person selected for this position must have direct access and communication skills with upper management in the company.

The duties and responsibilities of DPA are:

- Ensure accurate implementasi of policies in line with ISM Code
- Ensure that system evaluations are conducted on a regular basis and in accordance with established requirements
- Make decisions related to safety and pollution prevention, except for decisions made by the skipper who has full authority
- In order to plan standards and policies related to health, safety, and environmental protection that enable the company to achieve operational excellence
- Ensure that the Safety Management System is properly Documented, implemented and maintained

It can be concluded that the DPA's responsibility is to ensure that every vessel owned by the company can operate safely. Its powers and responsibilities include monitoring as well as aspects of operational safety and pollution prevention for each vessel.

Non-Conformity

Internal audits or system checks are conducted regularly on board to verify the effectiveness of the Safety management System (SMS). These checks are conducted by the DPA and the results are evaluated to make necessary improvements.

During an internal audit, it is likely that non-conformities will be found on board, for example reports submitted to the company are not in accordance with applicable regulations. In addition, ISM Code reports on exercises often include the same documentary evidence as previous exercise reports, which requires the ISM Code report to be revised again.

Benefits of ISM Code

The benefits that can be obtained from the implementation of the ISM Code to improve the safety of ship crews are:

- Reduce the incidence of work accidents on ships and reduce the risk of pollution from ship.
- Improve the effectiveness of planned and measured marine pollution safety and prevention plans and measures
- Create a safe working environment for the ship's crew

The objectives of the ISM Code Implementation to improve ship crew safety are as follows:

- The main objective is to protect the safety of the crew from any kind of accident, even life threatening ones. By implementing this, incidents can be minimized or eliminated.
- Preserve the marine environment including flora and fauna
- Increase customer trust and satisfaction in terms of safety, in cooperation such as ship chartering, customers will ensure that they partner with a company that can guarantee safety

Barriers to Implementation of the ISM Code on board ships

In the Implementation of the ISM Code, the main focus is on shipping safety and pollution prevention efforts. However, it is inevitable that there will be some obstacles that may occur.

The inhibiting factors in the Implementation of the ISM Code that occur on board are:

- Problems arising in implementation related to Human Resources, especially related to understanding of the ISM Code (lack of understanding of the crew of the ship about the ISM Code)
- Crew indifference and inconsistency in maintaining the implementation of the ISM Code
- Lack of supervision, especially regarding the lack of assertiveness in enforcing ISM Code regulations on ships

In order to reduce barriers and continuously improve the implementation of the ISM Code to enhance crew safety, the following steps can be taken:

- Holding safety meeting every month when the ship is docked especially ahead of inspections by the company
- Carry out an induction process by providing explanations and showing animations about work accident on board the ship
- Supervise the performance of the crew to ensure that they comply with the procedures and regulations set out in the ISM Code

CONCLUSIONS AND RECOMMENDATION

CONCLUSIONS

Implementation of ISM Code Ship MV. Eastern Fair at PT Pelayaran Multi Jaya Samudera Belawan has been running well even though it is not entirely perfect. By complying with the procedures set out in the ISM Code, shipping companies can create a safe working environment, reduce the risk of accidents, and maintain the welfare of crew members..

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