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# Peculiarities Of Health And Safety Management

## Introduction

One mode of transportation, which has stood the test of time is the shipping industry. According to the North American Marine Environment Protection Association “The first major trade routes were formed, 5000 years ago between India and Pakistan along the Arabian Sea”. As stated by the business.un.org, “Maritime transport is essential to the world’s economy as over 90% of the world’s trade is carried by sea and the most cost effective, to move en masse goods and raw materials around the world”. A major contribution to this is the regulatory framework put in place throughout the industry especially in terms of safety to sustain the industry. Regulatory framework has numerous meanings but is usually noted as principal regulations and other important materials such as relevant laws, rules and regulatory bodies. It should be considered as model to follow to modernize and execute regulations in a decisive fashion. It displays ways to appropriately comply and respond to situations. Thus, containing all necessary policies and laws which oversee safety, occupation and health. Therefore, it can be used as a hinder to malpractice and help standardize activities across the board. An individual may feel obliged to do more without breach of minimum safety levels. Regulatory framework should be followed by both navigational officers and shipping executives in the industry since their operations are so closely linked with each other, therefore they are both able to use the same Safety Management Systems (SMS).

## Need for Regulatory Framework and Safety Management

Safety management is managing business activities, applying principles, processes, procedures, plans and instructions, including checklists as appropriate along with framework to help prevent accidents, injuries and to reduce other risk. A Safety Management System (SMS) should be inclusive of all aforementioned. Therefore, it can be deduced that SMS and regulatory framework go hand in hand whereby the regulatory framework determines the standard legally and then it may be internally integrated into your company or organization using procedure and policy. The regulatory framework acts as a guide of minimal stipulations to all businesses or organizations.

## Why Is safety management essential?

Safety can have both social and economic reasoning. Socially the impact safety has on a worker as well as the stature of the company. The worker and management initially may be unwilling to invest time into safety training and awareness as it results in a loss of man hours. Although, individuals can be won over if they are made to understand that safety deals not only with complying with regulations but geared towards the benefit of the entire organization. Furthermore, workers can feel safer making the workplace more inviting, which can translate into better business relations making their pursuits more successful. If a company is noted to comply with regulations and laws, pertaining to safety of their workers and clients, it promotes the idea that they are above board in their doings. Individuals are often motivated to work for those of good character and so more business is created. Safety from an economic point of

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view, may cut profits as implementation and training comes at a cost. Profitability must co-exist with safety, as without safety the loss of man hours, legal liability and a tarnished image will impoverish business and profit margins. Safety versus profitability is a delicate balance but in the long-term it's better to be safe than sorry. Overall safety management increases effectiveness and productivity of maritime operations as procedure sets directives and solutions when problems arise. From the above it has been established that regulatory framework exists and operates as a guideline, but what are the substantive documents? Documents examined are SOLAS, STCW AND MLC.

## **Safety of Life at Sea (SOLAS)**

SOLAS stands for the International Convention for Safety of Life at Sea. As stated by the International Maritime Organization (IMO) its role is "to specify minimum standards for the construction, equipment and operation of ships, compatible with their safety. Flag States are responsible for ensuring that ships under their flag comply with its requirements, and a number of certificates are prescribed in the Convention as proof that this has been done". This convention was established in 1914 after the horrific accident of the Titanic in 1912. Since then it has had three new versions with 1974 being the latest and enforced from 25th May 1980. The current convention has articles laying out amendment procedures, general obligations along with an annex divided into fourteen chapters. The SOLAS Convention has been ratified by 164 States representing 99.19% of the world's merchant shipping tonnage. Contracting Governments can also inspect vessels of other Contracting States if there are clear grounds for believing that the ship and its equipment do not substantially comply with the requirements of the Convention. This is also known as port state control.

## **International Convention on Standards of Training, Certification and Watchkeeping (STCW)**

Another convention is STCW. This stands for the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers. According to EduMaritime, "The convention helps and enforces a series of standards for the safe keeping of shipping environment and keeping the oceans clean. Also sets qualification standards for masters, officers and watch personnel on seagoing merchant ships." This convention was adopted by the IMO in 1978 in London and enforced from 28th of April 1984. Prior to the standards of training, certification and watchkeeping of officers and ratings were set by individual governments, generally without reference to practices in other countries. As a result, standards and procedures varied widely, despite shipping being the most international of all industries. This Convention establishes minimum standards in relation to training, certification and watchkeeping for seafarers which countries are obligated to meet or exceed. Nonetheless, the Convention was lambasted for being too vague which resulted in multiple interpretations of the same thing. Thus, the technical annex was split into regulations in 1995. It was most recently amended on 25th June 2010 to include the Manila amendments in the eight chapters of the convention. This convention is so important due to accidents such as the Ovit tanker accident. According to Safety 4 Sea, "In the early morning of the 18 September 2013, the Maltese-registered tanker 'Ovit' was transiting the Dover Strait, on passage from Rotterdam, Netherlands, to Brindisi, Italy, carrying vegetable oil. The intended route through the Dover Strait was prepared using the ship's ECDIS. AT 0230, the chief officer arrived on the bridge and took over from the second officer as the officer of the watch (OOW). The deck cadet, who

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was the assigned lookout, joined him. Ovit was following an autopilot-controlled heading of 206° at a speed of between 12 and 13 knots. The OOW selected the scale on the ECDIS display that closely aligned with the 12 nm range scale set on the adjacent radar display. He then sat in the port bridge chair where he had a direct view of both displays. At 0300 the heading on the autopilot was adjusted to 225°. As Ovit approached the Varne Bank, the deck cadet, who was standing on the starboard side of the bridge and using binoculars, became aware of flashing white lights ahead. He did not identify the lights or report the sighting to the OOW. At 0417, Ovit passed close by the Varne Light Float. From 0432 the ship's speed slowly reduced until the vessel stopped when it grounded on the Varne Bank at 0434. The ship remained aground for just under 3 hours. There were no injuries and damage to the vessel was superficial. There was no pollution. The ovit refloated on the rising tide and subsequently berthed in Dover". Probable causes to this accident were due to the passage being planned by an inexperienced and unsupervised junior officer, lack of proper knowledge on how to use electronic display information systems and failure to follow SMS procedures. This is further reason why STCW competency is critical for the preservation of life and the environment.

## **Finally, there is the Maritime Labour Convention.**

The Maritime Labour Convention was adopted by the International Labour Conference of the International Labour Organization (ILO) on February 2006 in Geneva, Switzerland. It sets out seafarers' rights to decent conditions of work and helps to create conditions of fair competition for ship-owners. It is intended to be easily understandable, readily updatable, uniformly enforced and globally applicable. The MLC, 2006 has been framed to become a global legal instrument that will be the "fourth pillar" of the international regulatory regime along with SOLAS, STCW, MARPOL conventions. The Convention came into force on 20th August 2013. Ships will need to obtain a Maritime Labour Certificate issued by the Flag State which is a party to the MLC Convention and need also to carry and maintain on board a Declaration of Maritime Labour Compliance (DMLC). According to Marine Insight, "Nearly 1.2 million seafarers will be affected by the terms and conditions of this human rights act, which will lay down a set of regulations for protection at work, living conditions, employment, health, social security and similar related issues". From January 2019, ninety countries had ratified the MLC 2006, thus resulting in 91% of the world's shipping fleet being regulated.

## **The International Safety Management Code (ISM Code)**

Moreover, since the regulatory framework to be applied has been established above, how do we put it into effect? Certain principles should be taken into consideration by shipping companies when construction of a Safety Management Plan. These principles or standards can be found in the International Safety Management (ISM) Code. This code was adopted into SOLAS in 1994, it is complied with in accordance to chapter IX of SOLAS. The code requires that protection be established against pollution and safety risk in handling shipboard operations. The ISM Code has objectives and requires the creation of a safety management system (SMS) by 'the Company', which is stated as the ship-owner or any individual, who has assumed responsibility for operating the ship. The Company is then required to produce and enforce a policy for achieving these objectives. This includes shore-based support and other adequate resources where deemed necessary. The procedures required by the Code should be documented and compiled in a Safety Management Manual, a copy of which should be kept on board. The code consists of two parts;

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- Part A(Implementation)
  - Part B (Certification and Verification)

## **Integration of Management Practices Under SMS**

Safety Management Systems (SMS), is deemed as a planned system put into effect by shipping companies to guarantee safety of the ship and environment. It encompasses all safety functions for ships at sea. Thus, ensuring every ship with an SMS follows all relevant safety policies, recommendations and guidelines proposed by the IMO. This reduces any potential pollution, disaster or collision from taking place on board. Safety Management is critical for competent maritime operations. There are some basic guidelines to assure safety of all vessels and the surrounding environment that should be integrated under management practices include:

- Method for reporting forms of non- conformities.
- Procedural acts and preparation in emergency situations
- The implementation of an environment and safety protection policy.
- Vessel particulars
- Procedures to verify safe operations on vessels to protect marine environments in compliance with relevant flag state and international legislations.
- Procedure for internal audit and review.

The SMS really takes into consideration the day to day operations. As to procedure for emergency, how training and drills are undertaken also who be the designated individual etc. This responsibility mainly lies with the owner of the vessel but usually the ships Captain and crew are most competent to make an SMS as they know everything about the vessel. For easy reference the SMS is divided into sections. The sections are:

- General
- Safety and environmental policy
- Resources and personnel
- Reporting of accidents
- Operational procedures
- Designated person (DP)
- Master's responsibilities and authority
- Emergency procedures
- Maintenance and records
- Documentation
- Company's responsibility and authority
- Review and evaluation

These items are deemed to be the main aspects of basic SMS, although the plan may vary according to the cargo carried and the type of vessel. In the functioning of the ISM code application on ships, SMS plays an important role.

## **Role as Officer/ Executive in Maritime Operations Regarding SMS**

Firstly, as a navigational officer/ executive I should ensure that the roles and responsibilities are enacted into the governance structure. There must be adequate bridge deck assistance to

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enable designated individuals to carry out their duty. Secondly, it's my duty to lead by example in implementation of safety and health by being involved in policy making, approval and signing to show the shipping company executives. In development of the system, communication of the concerns of one's subordinates should also be established. As an officer I would coordinate to have someone represent the workers on health and safety matters as it impacts and concerns them, also workers should be notified of risk involved and possible solutions to them. If employees feel included in the process, they would be inclined to see the system work especially with clear and regular feedback. Afterwards the management of the system should ensure the development of these health and safety policies and procedure. Policies, procedures and plans would be in keeping with standardized regulations defined by the regulatory framework of MLC, STCW AND SOLAS. As master, the nature and size of the vessel should be taken into consideration to make necessary adjustments as the ISM code permits. Hence it would be wise to consult with fellow officers/ managerial team for ideas and recommendations to be disseminate these policies to those workers on the vessel. Furthermore, drills and exercises must be carried out in order to prepare for emergencies. This allows for the enacted policies and procedures and includes everyone, due to upkeep of safety being everyone's business. Incidents of non-conformity and accidents will be logged and analyzed to allow for improvements to be made within the system. If the system is replaced or updated time should be allocated for all individuals involved within the organization to be reeducated and trained accordingly.

One case study is the Herald of Free Enterprise. According to safety4sea," In the afternoon hours of the 6th March 1987, the UK-registered Ro-Ro ferry 'Herald of Free Enterprise' sailed in the inner harbor at Belgium's Port of Zeebrugge, with 80 crew members, 459 passengers, 81 cars, 47 freight vehicles and three other vehicles onboard. Leaving for Dover, the 'Herald' passed the outer mole at 18.24. She capsized about four minutes later. During the final moments, the ferry turned rapidly to starboard and was prevented from sinking totally because her port side took the ground in shallow water. The 'Herald' came to rest on a heading of 136' with her starboard side above the surface. Water rapidly filled the ship below the surface level trapping people inside the hull. As a result, 193 people onboard (others say 188) lost their lives, mostly from hypothermia. Many others were injured". The article further stated the court findings which indicated the causes of the accident were due to negligence, poor communication and lack of directions, ship design, squat effect and pressure to leave birth. Factors which lead to the grounding were not following standard practice for executing and planning a voyage along with not following proper navigational watchkeeping.

## **Conclusion**

In Conclusion, safety should not be followed only when desired but constantly as it improves productivity and efficiency of the vessel and the company it belongs too. The regulatory framework through SOLAS, STCW, MLC and the ISM Code should be considered always as an improvement to the maritime industry and a continuation in strengthening the industry. At the end of the day it's all done to preserve safety of life at sea and protect the environment. With conviction health and safety should not only be values held fast to by individuals in the maritime industry but all industries.

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