

INTERNATIONAL SAFETY MANAGEMENT CODE

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INTRODUCTION

The causes for some 80% of all marine accidents stem from human errors, organizational and or management shortcomings. Risks have been enormously reduced by a large number of international regulations, proven new-building specifications and stringent supervision by Classification societies.

This leaves the establishment of a system to supervise and improve human behaviour as a promising measure. The objective is to minimize safety risks by combinations of effective shore based assistance and well-organized work on board.

In 1989 IMO adopted a Resolution (A.647- 16), *Guidelines on Management for the Safe of ships and for Pollution Prevention*.

The aim of this document was to provide those responsible for the operation of vessels with a framework for the proper development, implementation and assessment of safety and pollution prevention management in accordance with good practice.

In 1993 IMO adopted the *International Management Code for the Safe Operations of Ships and for Pollution Prevention* which in July 1998 became mandatory for tankers, bulk carriers and passenger ships.

From July 2002 ISM Code is mandatory for all other ships.

ISM OBJECTIVES

Safety of shipping is the main objective of ISM Code: the protection of human life has priority followed by prevention of pollution and damage to propriety.

There are at least three reasons to adopt the ISM Code:

- It makes vessels a safer place to work: it provides for safe working practices and develops a safe working environment on board vessels;
- It protects the sea and the marine environment;
- It clearly defines seafarers' duties.

COMPANY'S SAFETY MANAGEMENT SYSTEM

The SMS in a shipping company should be designed to create a solid base for safe ship operation by:

- Establishing and maintaining safe working procedures on board, and by ensuring safety in the work environment;
- Introducing safety measures responding to all identified risks;
- Continuously improving the skills of personnel on board and ashore, to implement safety measures, including the preparation for safety or environmental emergencies.

THE ROLE OF THE SEAFARER IN THE ISM

The seafarers are very important in working with the system. They are the ones who make it work since they represent the end users of the system. Their participation and involvement is required during the development and implementation stages.

A CLOSER LOOK TO ISM CODE

The ISM Code is subdivided into thirteen sections as follows:

1. GENERAL

The aims of ISM Code are to ensure safety at sea, prevention of human injuries or loss of life and avoidance of damages to the marine environment and to propriety. The requirements of ISM Code are applied to all ships.

2. COMPANY POLICY

The company shall establish the principle of its Safety Management System (SMS) in its policy.

In particular it should be stated how ISM objectives shall be attained in its company and on board its ships.

This policy must be known to all its employees ashore and on board at all levels and will form the basis for both decisions and daily activities.

This implies that the formulation of such policy to be made as simple as possible.

3. COMPANY RESPONSIBILITIES AND AUTHORITIES

If the ship is not operated by the owner, he has to inform the Administration of the flag State about the responsible operator.

The main part of this section deals with responsibilities, authorities and the interconnection of employees both on board and ashore as far as safety is concerned. These have to be defined in writing.

The ISM Code requires that the company provides for adequate resources and shore-based support.

Therefore, the Designated Person has to take care that sufficient means and support are provided.

4. DESIGNATED PERSON(S)

This element defines that one or more Designated Persons are appointed by the company.

The Designated Person shall:

- Be employed ashore;
- Be an interface in safety matters between the ships and its company;
- Ensure the safe operation of every ship;
- Have direct access to the highest management level;
- Monitor the safety and environmental matters of every ship;
- Have the authority to ensure that appropriate means and shore-based support are applied.

All this means that the Designated Person is a focal point for all safety and environmental matters.

However, due to the large numbers of tasks involved, it is recommended that the Designated Person delegates administrative tasks to other employees.

5. MASTER'S RESPONSIBILITY AND AUTHORITY

The Code deals here with one of the most essential functions for safety: the master.

The company has to define the responsibilities and authorities of the master in writing.

However, it should be part of the master's responsibilities to:

- a. Implement to company's policy on board;
- b. Motivate the crew to observe the policy;
- c. Give instructions in a simple a clear manner;
- d. Monitor that all regulations and instructions are observed;
- e. Review the system and report for improvements to the company.

Moreover, the company has to define the authority of the master, expressing in particular that he has the overriding authority in all safety and environmental matters. The master may also request the support of the shore-based organization if the situation requires it, not only in emergency but also for ships routine.

6. PERSONNEL QUALIFICATIONS

The ISM Code obliges the company to look after sufficient and qualified staff as enacted by STCW 95 requirements.

6.1 PERSONNEL FAMILIARIZATION

Employee on board and ashore must be familiar with their tasks as defined by STCW 95.

In particular, the company must state which information or instruction shall be given prior to sailing.

This includes general orientation on board, the escape routes, knowledge of the alarms, muster stations and life-saving equipment.

Since familiarization/training are demanded in accordance with STCW 95, a documented procedure must be on board of all vessels.

6.2 PERSONNEL- TRAINING

The company has to establish procedures for the identification of the training needed to support the SMS (Safety Management System) with their relevant records.

6.3 PERSONNEL- KNOWLEDGE OF THE SYSTEM, RULES AND REGULATIONS

An essential basis for the effective working of the SMS is the knowledge of the employees.

Everyone must know the applicable rules and regulations to the appropriate degree.

It shall be specified the knowledge the employee must have.

6.4 PERSONNEL- LANGUAGES ON BOARD

Mistakes and misunderstandings can also arise from a lack of communication due to language(s) spoken on board.

Since on today's vessels multinational crews are employed, ISM Code requires that the crew receive information about SMS in a working language or in a language understood by them. It is also required that the crew can communicate effectively at work.

7. KEY SHIPBOARD OPERATIONS

All processes essential for the safety and the environmental protection on board, must be defined in written plans.

Here, the tasks shall be assigned to adequately qualified employees.

By means of this planning, the processes should be organized in a way to cover all legal requirements and, at the same time, to avoid mistakes, which can impair the safety and the environmental protection.

However, the documented procedure shall be made up for routine as well as for special situations.

The company shall establish in a documented procedure how such plans and further instructions on board shall be worked out.

8. EMERGENCIES

In order to react promptly to emergencies, adequate and coordinated plans for all possible emergencies have to be prepared and practised through safety drills.

At this time all situations which are conceivable, possible and probable for a defined vessel, its cargo and trade must be taken into account.

For this purpose IMO has established a guideline to be used for the preparation of emergency procedures:

Guidelines for a structure of an Integrated System of Contingency Planning for Shipboard Emergencies (IMO Resolution A.852. (209).

These exercises must fulfil SOLAS requirements, chapter III, Regulation 19 and must cover all further identified and probable emergencies connected to abandon of ship, fire and man over board drills.

The ISM Code requires a shore-based organization to be prepared to assist its ships, if necessary, at any time.

This means that also the shore base organization must perform emergency drills. It is expected a that a common exercise takes place at least once a year with every ship. With larger fleets, exceptions are possible.

9. NON-CONFORMITIES AND ACCIDENTS

A SMS follows the principle of continuous improvement. Therefore it is demanded that all non-conformities, accidents and dangerous situations have to be reported to the company.

This includes dangerous situations like near misses or other mistakes happened or recognized risks.

The reports shall be examined and analysed to start suitable improvement measures.

10. MAINTENANCE

The ISM Code requires a procedure for the vessel maintenance which will ensure that all applicable rules and regulations and further additional requirements by the company are fulfilled.

Inspections shall be carried out at adequate intervals. All non-conformities discovered have to be reported together with their causes. Appropriate corrective actions should be initiated, keeping the relevant records.

Moreover, a procedure shall state which equipment on board can lead to dangerous situations in case of sudden failure.

Stand-by equipment not used permanently shall be tested.

11. DOCUMENTATION

In a documented procedure, the company shall establish how documents and data should be managed.

Therefore, it should be ensured that:

- Valid documents are available at all relevant places;
- Amendments to documents are checked and approved by authorized personnel;
- Invalid documents are removed immediately.

The documents describing the SMS make up the "Safety Management Manual".

Every vessel shall carry all relevant and current documents on board.

12. COMPANY VERIFICATION, REVIEW AND EVALUATION

The ISM Code demands that the Company shall check its SMS at regular intervals. Hereby it should be verified whether all activities are carried out in accordance with the SMS. These so called internal audits shall be executed by employees who are independent of the area being audited.

Corrective actions shall be established and implemented for all non-conformities recognized during audits.

The company shall further check and evaluate the efficiency of the SMS and, when required, review the system at regular intervals.

At this time it should be considered that the ISM Code also requests the master to review the effectiveness of the system on board and to report problems to the shore base organization. However, it is advisable to coordinate these activities in a common procedure.

The areas of the ship or the company concerned shall be informed about the results of the audits and reviews.

13. CERTIFICATION AND VERIFICATION

The shore based organization operating a ship must have a valid *Document of Compliance* (DOC).

It will be issued by the Flag State or an organization recognized by the Flag State.

If the shore based organization resides abroad, the government there can be involved in issuing the DOC on behalf of the Flag State.

A current copy of the DOC must be available on board.

The ISM Code further requires that for every ship a *Safety Management Certificate* (CSM) shall be issued by the Flag State or by a recognized organization.

The Flag State or the recognized organization will verify the effectiveness of the SMS through periodical checks.

CONCLUSION

If the ISM Code is to have a significant impact on safety, we need to create an environment whereby masters and seafarers, as well as their employers, can feel comfortable and confident that they can report problems, preferably before they fully manifest themselves, so that those problems can be dealt with before people or property becomes injured or damaged.

We need to find a way of moving from a culture of fear and blame to a culture of safety and continuous improvement.

References:

Germanischer Lloyd- Ship Safety Division

CYMEPEA- A 10 minutes guide on I.M.O. I.S.M. Code