

# Safety Officer Workbook

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## 1. Course Structure

The tuition material within this onboard training course is delivered as a compilation of e-learning modules (#1, #5, #88, #123, #306, #307) and a Workbook section. This Workbook section provides references to the breakdown of the relevant current legislation and guidelines appertaining to onboard Health and Safety and the Safety Officer.

To successfully complete the course every part of this tuition material should be studied and all assessments and practical exercises completed successfully.

At the end of each e-learning module there will be a set of assessment questions selected at random from a question bank. The assessment marks achieved and the proportion of the e-learning module completed will be monitored and recorded by the Ocean Learning Platform, these will be evaluated with all the other material.

It would be an advantage to have the ISM code, flag state requirements, the ships Safety Management System and the MCA's Code of Safe Working Practices for Merchant Seamen available when completing this Safety Officer course.

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## 2. Introduction

### 2.1. Background

The development of a sound safety culture and the achievement of high standards of safety depend on good organisation and the complete support of management and all personnel.

Every person onboard has a responsibility for safety. Each individual worker is responsible for his own health and safety and that of anyone affected by what he does or fails to do.

Each officer is responsible for health and safety of those they supervise and others affected.

Heads of department are responsible for health and safety in their own department.

The Master has the day-to-day responsibility for the safe operation of the ship and the safety of those on board.

The Company is responsible for ensuring the overall safety of the ship and that safety on board is properly organised and co-ordinated.

### 2.2. Learning objectives

Those who successfully complete this onboard training course should be able to successfully and effectively undertake the duties as a safety officer.

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## 3. WORKBOOK FOR SAFETY OFFICER

We would recommend that you to have ISM code, flag state requirements, the ships Safety Management System, and MCA Code of Safe Working Practices for Merchant Seamen available when you work with this Safety Officer course.

### 3.1. Introduction part 1

This part of workbook applies equally to all ships, whether or not safety officials are appointed or elected by law. The text is quoted from the Code of Safe Working Practices for Merchant Seamen, Consolidated Edition – April 2002, with permission from Maritime and Coastguard Agency - MCA. The course has been revised according to 2015 edition of Code of Safe Working Practices for Merchant Seamen

#### 3.1.1. International health and safety legislation.

Chapter IX of SOLAS, Management for the Safe Operation of Ships, requires the mandatory application of the ISM Code on ships engaged on international voyages.

Regulation 3 Chapter IX

Safety management requirements

The company and the ship shall comply with the requirements of the International Safety Management Code. For the purpose of this regulation, the requirements of the Code shall be treated as mandatory.

#### 3.1.2. International health and safety legislation. ISM code

The origins of the ISM Code go back, internationally, to the late 1980s when there was mounting concern about poor management standards in shipping. It is estimated that a high proportion of maritime accidents (80%-90%) are attributable to human error. Investigations into accidents highlighted shortcomings on the part of management and in 1987 the IMO Assembly adopted Resolution A.595 (15), which called upon the Maritime Safety Committee to develop guidelines concerning shipboard and shore-based management to ensure the safe operation of roll-on/roll-off (Ro-Ro) passenger ferries. The tragic loss of the Herald of Free Enterprise in 1987 was a catalyst in this process.

#### 3.1.3. Principles and objectives of the ISM Code

Given that no two shipping Companies or ship owners are identical and that ships operate under a wide range of different conditions, the ISM Code is expressed in broad terms and based on general principles and objectives. This provides Companies with the scope to develop their own management system whilst meeting the provisions of the ISM Code. The Code represents a conscious move away from prescriptive measures and looks at the totality of the operation of a Company and its ships.

The objectives of the ISM Code are to ensure safety at sea, prevention of human injury, loss of life and avoidance of damage to the environment, in particular to the marine environment. The ISM Code requires owners and operators of ships to set in place a Safety Management System (SMS). The introduction of an SMS requires a Company to document its management procedures to ensure that conditions, activities and tasks,

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both ashore and afloat, affecting safety and environmental protection, are planned, organised, executed and checked in accordance with legislative and Company requirements. The mandatory application of the ISM Code will help to ensure: compliance with mandatory rules and regulations related to the safe operation of ships and the protection of the environment; and the effective implementation and enforcement thereof by Administrations.

#### 3.1.4. Domestic health and safety legislation

To be sure your vessel complies with domestic health and safety legislation you must check your flag state requirements regarding the duty of the Safety Officer.

#### 3.1.5. Duty of care

One of the responsibilities of any employer is a 'duty of care' for their employees which includes ensuring that they have a healthy and safe working environment and that their general welfare is considered when assigning tasks and duties to the employee. To achieve this they must have carried out and recorded suitable risk assessments and put in place plans and procedures to minimise these risks to an acceptable level. In addition they should have a formal health and safety policy which is available to all employees

All employers, whatever the size of the business, must:

- Make the workplace safe
- Prevent risks to health
- Ensure that plant and machinery is safe to use, and that safe working practices are set up and followed
- Make sure that all materials are handled, stored and used safely
- Provide adequate first aid facilities
- Tell staff about any potential hazards from the work they do, chemicals and other substances used by the firm, and provide information, instructions, training and supervision as needed
- Set up emergency plans
- Make sure that ventilation, temperature, lighting, and toilet, washing and rest facilities all meet health, safety and welfare requirements
- Check that the right work equipment is provided and is properly used and regularly maintained
- Prevent or control exposure to substances that may damage health
- Take precautions against the risks caused by flammable or explosive hazards, electrical equipment, noise and radiation
- Avoid potentially dangerous work involving manual handling (and if it can't be avoided, take precautions to reduce the risk of injury)
- Provide health supervision as needed
- Provide protective clothing or equipment free of charge (if risks can't be removed or adequately controlled by any other means)
- Ensure that the right warning signs are provided and looked after
- Report certain accidents, injuries, diseases and dangerous occurrences to either the Health and Safety Executive (HSE) or the local authority, depending on the type of business

#### 3.1.6. Commitment to promote a safe working environment

The crew on board has the right to a safe work environment, but it is not only the employer's responsibility, we all are responsible for a safe work environment on

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board.

The safety officer must serve as a good role model for safe working practices, behaviour and must make a commitment to take an active role in safety. If the safety officer sees an unsafe job, stop it and if necessary report it. Give your suggestions to make different jobs on board safer, make sure personnel operating equipment and machinery have been properly trained. The safety officer must also report all injuries, near misses and accidents. By being involved and responsible your commitment to safety will contribute to a safer work environment on board.

### 3.1.7. Communication with a multinational crew

Due to economic reasons there are fewer crewmembers on board and the crew is often multi-national. To be able to work together as a team is essential on board a ship, if not it may affect the safety of the crew, ship and cargo.

Misunderstandings may lead to serious incidents which can jeopardise the safety of the crew or the protection of the environment.

On all ships, to ensure effective crew performance in safety matters, a working language shall be established. Each seafarer shall be required to understand and give orders and instructions and to report back in that language. Being aware of the other crewmembers cultures and traditions is also important to be able to work together as a team.

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## 4. SAFETY OFFICIALS

Every person onboard has a responsibility for safety:

- The Company is responsible for ensuring the overall safety of the ship and that safety onboard is properly organised and coordinated.
- The master has the day-to-day responsibility for the safe operation of the ship and the safety of those on board.
- Each employer is responsible for the health and safety of their workers.
- Heads of department is responsible for health and safety in their own department.
- Each officer/manager is responsible for health and safety for those they supervise and others affected
- Each individual seafarer or worker is responsible for their own health and safety and that of anyone affected by their acts and omissions.

*Managing occupational health and safety, the development of a positive safety culture and the achievement of high standards of safety depend on good organisation and the whole-hearted support of management and all seafarers.*

Those with specific safety responsibilities are more likely to perform well when management is clearly committed to health and safety. It is also important that procedures are in place so that all seafarers can cooperate and participate in establishing and maintaining safe working conditions and practices.

### 4.1. Employers duties

This section applies to all ships.

Every employer is required to appoint one or more competent persons to promote health and safety in their undertaking. On board some large ships, where there are personnel working who are employed by several different employers, each employer must appoint (a) competent person(s). They do not have to work on the ship themselves, but to be “competent” for the task they should have knowledge of the duties undertaken by those for whom they are responsible, and should ensure that any specific risks encountered as a result of that particular working environment are dealt with appropriately – eg. by checking that the company has adequate safety procedures for all on board, and by co-ordinating risk assessment with the company.

The employer may “appoint” himself where, in a small organisation, there is no one else available to take on this responsibility. Alternatively, he may employ someone from outside his own organisation to advise on health and safety, provided that person is competent.

The employer must provide the competent person(s) with all relevant information they need to do their job. This would include a copy of the employer’s safety policy and risk assessments, information about the duties of personnel, and any information provided by other employers about risk and safety procedures in shared work-places.

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The employer is required to consult workers or their elected representatives on health and safety matters, in particular:

- Arrangements for the appointment of a competent person;
- The findings of the risk assessment;
- Arrangements for health and safety training; and
- The introduction of new technology.

The matters to be discussed might also include selection of work equipment and/or protective clothing and equipment, installation of safety signs and follow-up to accidents and other incidents, and arrangements for health surveillance.

Seafarers and workers on board or their elected representatives must be allowed to make representations to their employer about health and safety matters without disadvantage to themselves. Such representations should be given adequate consideration, perhaps in conjunction with the safety committee, and any agreed measures to improve safety implemented as soon as reasonably practicable.

It is also the employer's responsibility to ensure that workers or their elected representatives have access to relevant information and advice about health and safety matters from inspection agencies and health and safety authorities, and from their own records, about accidents, serious injuries and dangerous occurrences.

The Company and the employer must give elected representatives adequate time off normal duties, without loss of pay, to enable them to exercise their rights and carry out their function effectively. Workers safety representatives must not suffer any disadvantage for undertaking this function.

## 4.2. Company duties

This section applies to ships on which five or more seafarers are working.

The maritime authority may grant ad hoc exemptions to specific ships or classes of ships subject to any relevant special conditions. This is to allow different arrangements to be made in case where the requirements of the regulations would be difficult to apply.

### 4.2.1. Appointment of Safety Officers

On every sea-going ship which more than five workers are employed, the Company is required to appoint a safety officer. The master must record the appointment of a safety officer – this should be in the official logbook.

The safety officer is the safety adviser aboard the ship and can provide valuable assistance to the Company and to individual employers in meeting the statutory responsibilities for health and safety. Some training may be provided on board, but the safety officer should have attended a suitable safety officer's training course.

Although not prohibited by the Regulations the appointment of the master as the safety officer is not generally advisable. This is because the safety officer is required amongst

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his other duties to make representations and recommendations on health and safety to the master.

If possible the Company should avoid appointing as safety officer anyone to whom the master has delegated the task of giving medical treatment. This is because one of the duties of the safety officer is to investigate incidents, and they would not be able to give proper attention to this function while providing medical treatment for any casualties.

#### 4.2.2. Election of Safety Representative

On every ship on which more than five workers are employed, the Company must make arrangements for the election of safety representatives. The regulations specify that no safety representative may have less than 2 years consecutive sea service since attaining the age of 18, which in the case of a safety representative on board a tanker shall include at least 6 months service on such a ship.

The Company must make rules for the election of safety representatives by the workers on board and cannot disqualify particular persons. It is recommended that the employer should consult with any seafarers' organisations representing his employees when making these rules. The master should organise the election of safety representative within 3 days of being requested to do so by any two persons entitled to vote.

The number of safety representatives who should be elected will vary according to the number of seafarers on board and where appropriate the number of different departments or working groups. As far as practicable, seafarers at all levels and in all departments should have effective representation.

The master must record the election or appointment of every safety representative in writing – this should be either in the official logbook or in the minutes of safety committee meetings.

When there is a substantial change in those working on board, the master should remind personnel of their right to elect new safety representatives.

#### 4.2.3. Appointment of Safety committee

The Company is required to appoint a safety committee on every ship with five or more seafarers. The committee must be chaired by the master, and members will include, as a minimum, the safety officer and any elected safety representatives. If practical, in addition to the Company's competent person, any competent person appointed by other employers should be invited to attend.

The master must record the appointment of a safety committee in writing – this should normally be in the official logbook or minutes of the committee's meeting.

The composition of a safety committee recommended above does not preclude the appointment of other temporary members. However, the committee should be kept compact enough to maintain the interest of members and enable it to function efficiently. Where possible, the relevant shore managers with responsibility for safety on board may attend safety committee meetings on board ship and should in any event see the committee's minutes. On short-haul ferries on which different crews work a shift system a scheme of alternate committee members may be adopted to secure proper representation.

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Where large numbers of personnel work in separate departments (e.g. passenger ship galleys and restaurants), departmental sub-committees should be formed on lines similar to those of the main committee and under the chairmanship of a senior member of the department who should serve as a member of the main safety committee in order to report the views of the sub-committee.

It is preferable to appoint as secretary someone other than a safety official, as officials need to concentrate on the discussion rather than on recording it.

#### 4.2.4. Termination of appointments

A safety officer's appointment terminates as soon as the officer ceases to be employed in the particular ship or the employer terminates the particular appointment.

The appointment of a safety representative cannot be terminated by the Company, employer or master. They can resign or seafarers can elect another in his place.

Otherwise they remain a safety representative for as long as he serves on the ship.

A safety committee may be disbanded only when there are fewer than five seafarers working on board the ship. A safety committee can, however, operate whether or not there is an elected safety representative.

For ships with fewer than five seafarers on board, the master should ensure that information sharing, training and consultations on health and safety issues are carried out on board.

#### 4.2.5. Support for Safety Officials

The Company and master have a duty to facilitate the work of any person appointed as a safety official, providing them with access to a copy of **Code of Safe Working Practices for Merchant Seamen** and any relevant legislation, merchant shipping notices and other information, including:

- findings of the risk assessment and measures for protection in place
- any other factors affecting the health and safety of those working on the ship
- details of fire-fighting, first aid and other emergency procedures
- statistical information taken into account when conducting risk assessments.

Relevant information might include that concerning dangerous cargoes, maintenance work, the hazards of machinery, plant, equipment, processes and substances in use, and appropriate precautions. This will require co-ordination with all employers to obtain information about the findings of their risk assessment.

The Company and master, in co-operation with the employer, must also ensure that safety officials have the necessary resources and means. This will include providing any necessary accommodation and office supplies. They should also allow them sufficient time off from their duties without loss of pay, to enable them to fulfil their functions or undertake any necessary health and safety training.

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#### 4.2.6. Company recording of accidents

On a ship where no safety officer is appointed, the Company must ensure that a record is kept of all incidents resulting in death, or serious injury. This record must be available on request to any elected representative, and any person duly authorised by the maritime authority..

#### 4.2.7. Receiving representation about health and safety

The Company and employers must enable workers or their elected representatives to make representation about health and safety, and should also accept representation or recommendations from the safety officer. The Company and master will also receive representations from competent persons, safety officers and safety committees. These should be carefully considered and any agreed measures should be implanted as soon as reasonably practical.

The reaction to such representation will be seen as a measure of commitment to health and safety on board. All representation received, from whichever source, should be considered carefully. If there is likely to be a delay in giving an answer, then whoever has made the representations should be informed as soon as possible. Safety suggestions should be implanted, when it is feasible and reasonable to do so, as soon as reasonably practicable. If suggestions for health and safety measures are rejected, reasons should be given in writing. It is good practice to acknowledge all suggestions put forward, whether or not a written response is needed.

It is most important that the master takes a close interest in the work of the safety officials on board. The master should check that the safety officer is fulfilling his duties effectively, but should also give encouragement and support. The master is in much the best position to ensure that the committee works successfully, by encouraging participation and co-operation from all members

The Accident Reporting regulations govern when an incident should be reported to the Marine Accident Investigation Branch (MAIB) of the Department for Transport. It may sometimes be appropriate for companies to inform other ships in the fleet of an incident, and give appropriate recommendations on actions to be taken, in accordance with the Company's safety management system.

### 4.3. Duties of Safety Officers

It is very important that the safety officer maintains a good working relationship with safety representatives – for example, inviting the relevant safety representative to join him for the regular inspection of each part of the ship, or while carrying out an investigation, consulting them on safety matters and arrangements, and in particular on any follow-up action proposed.

The safety officer's relationship with the safety committee is rather different since he is both a member of the committee and also to some extent subject to its direction. A committee has the right to inspect any of the records which a safety officer is required by law to keep, and has the power to require the safety officer to carry out any health or safety inspections considered necessary.

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#### 4.3.1. Advice on compliance with safety requirements

The safety officer is required by the regulations to try to ensure compliance with the provisions of **Code of Safe Working Practices for Merchant Seamen** and any health and safety guidance and instructions for the ship.

The safety officer's role should be a positive one, seeking to initiate or develop safety measures before an incident occurs rather than afterwards.

The safety officer should do the following::

- Be on the lookout for any potential hazards and means of preventing incidents.
- Try to develop and sustain a high level of safety consciousness among the crew so that individuals work and react instinctively in a safe manner and have full regard to the safety not only of themselves but also of others. The objective is to become the ship's adviser on safety to whom the master, officers and all personnel will naturally turn for advice or help on safe working procedures.
- Where unsafe practice is observed, approach the individual or responsible officer concerned to suggest improvements in his method of working or use the safety committee to discuss examples of dangerous or unsafe practices in a particular area. If this brings no improvement, the safety officer should consider approaching the head of department or, as a last resort, the master to use his influence.
- Ensure that each worker joining the ship is instructed in all relevant health and safety arrangements, and of the importance attached to them before starting work.
- Where possible, ensure that arrangements are made for each new entrant to work with a crew member who is himself thoroughly safety conscious.
- Remind experienced seamen joining the ship for the first time of the importance of a high level of safety consciousness and of setting a good example to less experienced personnel.

The safety officer should also promote safety on board, subject to the agreement of the master, by:

- Arranging the distribution of booklets, leaflets and other advisory material on safety matters
- Supervising the display of posters and notices, replacing and renewing them regularly.
- Arranging for the showing of films of safety publicity and, where appropriate, organise subsequent discussions on the subjects depicted.
- Encouraging members of the crew to submit ideas and suggestions for improving safety and enlist their support for any proposed safety measures which may affect them
- Effective communication of new requirements or advice in relevant shipping legislation, Marine Notices and Company and ship's rules and instructions relating to safety at work about the ship.

#### 4.3.2. Investigation of accidents and dangerous occurrences

The safety officer has a duty to investigate notifiable accidents or dangerous occurrences affecting persons on board ship or during access, as well as potential hazards to health and safety and any reasonable complaints made by any personnel, and to make recommendations to the master. It is good practice to record and investigate as appropriate all incidents reported by personnel or passengers.

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Additional health or safety investigations or inspections may be commissioned by the safety committee.

#### 4.3.3. Safety Inspections

The Regulations require the safety officer to carry out health and safety inspections of each accessible part of the ship at least once every three months, or more frequently if there have been substantial changes in the conditions of work.

“Accessible” should be taken as meaning all those parts of the ship to which any seafarer has access without prior authority.

Deciding whether “substantial changes in the conditions of work” have taken place is a matter of judgement. Changes are not limited to physical matters such as new machinery but can also include changes in working practices or the presence of possible new hazards. A record should be kept of all inspections.

It is not necessary to complete an inspection of the whole ship at one time, as long as each accessible part of the ship is inspected every 3 months. It may be easier to get quick and effective action on recommendations arising out of an inspection, if one section is dealt with at a time. The safety officer should ensure that the inspections are carried out when necessary. Before beginning any inspection, previous reports of inspections of the particular section should be read, together with the recommendations made and the subsequent action taken. The control measures identified in any relevant risk assessment should also be read, and compliance with them checked during the inspection. Any recurring problems should be noted and, in particular, recommendations for action which have not been put into place. It is important, however, not to allow the findings of previous inspections to prejudice any new recommendations.

It is not possible to give a definitive checklist of everything to look for but safe access, the environment and working conditions are major items.

The safety officer is required to make representations and where appropriate recommendations to the master, and through the master to the Company, about any deficiency in the ship in respect of statutory requirements relating to health and safety, relevant merchant shipping notices and the provisions of Code of Safe Working Practices for Merchant Seamen.

In order to fulfil this properly, the safety officer needs to be familiar with the appropriate regulations.

#### 4.3.4. Duty to stop dangerous work

The safety officer has a duty to stop any work in progress which they reasonably believe may cause an accident and immediately inform the master who is responsible for deciding when work can safely be resumed.

This does not apply to an emergency action to safeguard life even though that action itself may involve a risk to life. The safety officer is not required to carry out their duties to inspect, keep records or make recommendations at a time when emergency action to safeguard life or the ship is being taken.

The safety officer should also encourage other seafarers to stop any work that the seafarer reasonably believes could cause an accident.

#### 4.3.5. Powers of safety representatives

Unlike the safety officer, the safety representative has powers not duties, although membership of the safety committee imposes certain obligations.

Safety representatives may, with the agreement of the safety officer, participate in investigations and inspections carried out by the safety officer, or, after notifying the master or his deputy, may carry out their own investigation or inspection.

They may also make representation to the Company on potential hazards and dangerous occurrences, and to the master or employer on general health and safety matters, the findings of the risk assessment, health and safety training, and the introduction of new

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technology.

They may request, through the safety committee, that the safety officer undertakes an investigations and reports back to them, and may inspect any of the records of the safety officer is required to keep. They should ensure that they see all incident reports submitted to the MAIB under the accident reporting regulations.

#### 4.3.6. Advice to safety representatives

Safety representatives should be familiar with the relevant safety regulations and guidance for their ship, regulations, marine notices and guidance's.

The effectiveness of safety representatives will depend to a large extent on good cooperation between them, the Company, other employers, the master, heads of department and safety officer.

Safety representatives should

- put forward their views and recommendations in a firm but reasonable and helpful manner.
- be sure of the facts.
- be aware of the legal position, and
- be conscious of what is reasonable practicable.

Having made recommendations, they should request to be kept informed of any follow-up actions taken, or the reason why such action was not possible.

If a safety representative finds that their efforts are being obstructed, or they are denied facilities, they should bring the matter to attention of the safety officer or of the master through the safety committee. It should be the aim to settle any difficulties on board ship or through the relevant employer or the Company. If this proves impossible, the problem should be referred to the trade union or to the relevant maritime authority.

#### 4.3.7. Advice to safety committees

The safety committee is a forum for consultation between the master, safety officials and others of matters relating to health and safety. It may be used by employers for consultation with the company and seafarers. Its effectiveness will depend on the commitment of its members, in particular that of the master. Because of its broad membership, and with the master as its chairman, the committee has the means to take effective action in all matters which it discusses other than those requiring the authorisation of the Company and employer. Safety committee meetings should not be used for the purposes of instruction or training.

The frequency of meetings will be determined by circumstances but the committee should meet regularly, taking into account the pattern of operation of the ship and the arrangement for manning and with sufficient frequency to ensure continuous improvement in safety. In particular, a meeting should also be held after any serious incident or accident on the ship, if normal meeting is not due within a week.

An agenda (together with any associated documents and papers, and the minutes of the previous meeting) should be circulated to all committee members in sufficient time to enable them to digest the contents and to prepare for the meeting.

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If there is a particularly long agenda, it may be better to hold two meetings in fairly quick succession rather than one long one. If two meetings are held, priority at the first meeting should, of course, be given to the more urgent matters.

The first item on the agenda should always be the minutes of the previous meeting. This allows any correction to the minutes to be recorded and gives the opportunity to report any follow-up action taken.

The last item but one should be “any other business”. This enables last minute items to be introduced, and prevents the written agenda being a stop on discussion. Any other business should be limited to important issues that have arisen since the agenda was prepared. All other items should be submitted for inclusion in the agenda of the next meeting.

The last item on the agenda should be the date, time and place of the next meeting.

Minutes of each meeting should record concisely the business discussed and conclusions reached. A copy should be provided to each committee member. They should be agreed as soon after the meeting as possible, or amended if necessary, and then agreed under the first agenda item of the following meeting.

A minutes file or book should be maintained together with summary of recommendations recording conclusions reached, in order to provide a permanent source of reference and so ensuring continuity should there be changes in personnel serving on the committee.

All seafarers should be kept informed on matters of interest which have been discussed, for example by posting summaries or extracts from the minutes on the ship’s notice boards. Suggestions may be stimulated by similarly posting the agenda in advance of meetings.

Relevant extracts of agreed minutes should be forwarded through the master to the Company and, where appropriate, individual employers, even when the matters referred to have already been taken up with them. A record of response or action taken by the Company should be maintained.

#### 4.3.8. Accident investigation

The investigation of accidents and incidents plays a very important part in safety. It is by the identification and study of accidents principally through the accident reporting system that similar events may be prevented in future.

The safety officer must investigate incidents and accidents and suggest corrective and preventive recommendations to prevent their recurrence.

The master is responsible for the statutory reporting of accidents and dangerous occurrences. Where a safety officer is on board, however, it is their statutory duty to investigate every such incident and it is expected that the master will rely extensively on the results and record of the safety officer’s investigation when completing their report. The various stages of the typical investigation might proceed as follows:

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- When an incident occurs priority must be given to the safety of the injured and of those assisting them, and to the immediate safety of the area. When sufficient help is available, however, the safety officer should, if possible, avoid involvement with the rescue operation and concentrate on establishing the immediate facts concerning the incident.
  - First the names should be recorded – and addresses in case of non-crew personnel – of all those present in the vicinity of the incident. Not all are likely to be witnesses to the actual incident but this can be ascertained later. The position of the injured should be noted and marked, and the use and condition of any protective clothing or equipment or of any tools etc. likely to have been in use. Any portable items that might have some relevance to the investigation should be put into safe storage. Sketches and photographs are often useful.
  - When the injured have been removed, the safety officer should carry out a more detailed examination at the scene of the incident, watching out for any changes which might have occurred since the incident and any remaining hazards.

The points to look out for will depend on the circumstances. For example after an incident during boarding, the following should be noted:

- Compliance with control measures identified by the risk assessment.
- The type of access equipment in use.
- The origin of the access equipment, e.g. ship's own, provided from shore.
- The condition of the access equipment itself, noting in particular any damage such as a broken guard-rail or rung. The position and extent of any damage should be examined so that it may be compared with witness statements, and it should be noted whether the damage was present before, or occurred during or as a result of the incident. (If the damage was present before the incident it might have been potentially dangerous but it may not necessarily have been a factor in the particular incident.)
- Any effect of external factors on the condition of the equipment, eg ice, water or oil on the surface.
- The deployment of the equipment, i.e. the location of the quayside and shipboard ends of the equipment.
- The rigging of the equipment, the method of securing, the approximate angle of inclination.
- The use of ancillary equipment (safety net, lifebuoy, lifeline and lighting).
- The safety of shipboard and quayside approaches to the equipment, eg adequate guard-rails, obstruction and obstacles etc.
- Any indication of how the incident might have happened, but remember that subsequent interviews with witnesses must be approached with an open mind.
- Weather conditions.
- Distances, where these are likely to be helpful or relevant

Interviews of witnesses should take place as soon as possible after the incident when memories are still fresh. There may be people who were not actually witnesses but who may nevertheless have valuable contributions to make, e.g. a seafarer who was present when an order was given. These persons should not be overlooked. If it is not possible for some reason to interview a particular person, they should be asked to send the safety officer his own account of the incident.

The actual interview should be carried out in an informal atmosphere designed to put the

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witness at his ease. To start with, the safety officer should explain the purpose of the interview and obtain some details of the witness's background. It is important to keep any personal bias out of the interview. The witness should be asked to relate the event in his own way with as few interruptions as possible. The accuracy of what is said should be tested. There may, for example, be discrepancies between the account of one witness and those of other witnesses, between different parts of a statement, or with the safety officer's own observations, which he may want to query. Leading questions implying an answer should be avoided, as should simple questions requiring only a yes/no answer which save the witness from thinking about what he is saying. Finally the safety officer should go over the statement with the witness to ensure that it has been accurately recorded.

Statements for signature by the witness should be prepared as quickly as possible but, if the witness changes their mind about signing a statement, it should be annotated by the safety officer that it has been prepared on the basis of an interview with the witness who had subsequently refused to sign it or comment further. Where the witness asks for extensive alterations to the original statement a fresh statement may have to be prepared, but the original statement should be annotated by the safety officer and retained.

It is helpful to adopt a standard format for statements by incident witnesses.

It is worth emphasising the importance of distinguishing between facts and opinions. Facts can normally be supported by evidence whereas opinions are personal beliefs. An investigation must depend on the facts gathered but opinions can be helpful in pursuing a particular line of enquiry and should not be disregarded.

Any record of incidents and dangerous occurrences should contain at least the following information:

- Details of incidents/dangerous occurrences/investigations/complaints/inspections.
- Date
- Persons involved
- Nature of injuries suffered
- All statements made by witness
- Any recommendations/representations
- Any action taken

Additionally it is suggested that it should contain the following:

- List of witnesses, addresses, positions and occupations
- Whereabouts of original signed statement made by witnesses
- Date accident/dangerous occurrence report sent to MAIB if applicable
- List of items collected, why and where stored
- Index

The record should be kept with the ship since it must be made available on request to the safety representative and safety committee, if any. It is also a necessary item of reference for safety officers on board the ship. If the ship is sold and remains on the UK register, the record should be transferred with the ship. Where the ship becomes a foreign ship the record should be retained by the original owners.

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## 5. Assessment and practical exercises.

Some of the questions and exercises will require you to look into your company's documents and procedures. If you have your own company report forms, you may use them instead of those provided in the following Appendixes.

Please write answers in separate sheet or document.

All questions and exercises are marked with a score; to get full score try to answer all questions as comprehensive as possible. All questions must be answered and a score of 75% is required to pass the course.

### Questions

1. Who is responsible for the safety onboard a vessel?  
**(3 marks/score)**
2. Describe the composition of the safety committee, and how the committee is organised onboard your ship?  
**(3 marks/score)**
3. What is the frequency of safety committee meetings onboard your vessel?  
**(3 marks/score)**
4. Why can it be problematic if the master is elected as safety officer?  
**(3 marks/score)**
5. Describe your vessels procedures relating to the SMS work and record keeping relating to safety officer.  
**(3 marks/score)**
6. Which personal qualities do you think is important for a safety officer or a safety representative?  
**(3 marks/score)**
7. Describe the policy in your company regarding who can be elected as s safety representative.  
**(3 marks/score)**
8. How do you understand the expression "Duty of care"?  
**(3 marks/score)**
9. What would your reaction be if you see a colleague use defective tools or equipment that represents a risk to them?  
**(3 marks/score)**
10. Those who do a risk assessment must be qualified to do so, how do you ensure that only qualified persons do the risk assessment?  
**(3 marks/score)**

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11. A strong safety culture is a key factor to avoid accidents and injuries. Describe the safety culture onboard your vessel.  
**(3 marks/score)**
  
  12. Is it initiated any measures to maintain and/or improve the safety culture onboard your vessel?  
**(3 marks/score)**
  
  13. How often do the safety officer carry out safety inspections onboard your vessel and are all inspection reports filed and discussed in the safety committee meetings?  
**(3 marks/score)**
  
  14. Give one example of an initiative from the safety committee that has resulted in increased safety for those onboard, and what is the difference before and after?  
**(3 marks/score)**
  
  15. Describe how you would plan and carry out an entry into one of the vessels empty fuel oil tanks. Describe in steps what must be done and why it must be done. You are welcome to attach company procedures as a part of your answer.  
**(20 marks/score)**
  
  16. Fill in the Accident Report Form from Marine Accident Investigation Branch (Appendix 1) with an incident you have experienced or an imaginary accident leading to death of significant injury.  
**(8 marks/score)**
  
  17. Use the Checklist for safety officer`s inspection report in Appendix 2. and carry out an inspection on-board your vessel. Write a report from your inspection. If you find other factors that may affect the safety onboard, please highlight this in your report.  
**(8 marks/score)**

Appendix 1 – Accident Report Form



## Accident Report Form (ARF)

The Merchant Shipping (Accident Reporting and Investigation) Regulations 2012 requires that marine accidents (including serious injuries) and marine incidents (commonly known as 'near misses') be reported to the MAIB. MGN 564 provides further information on who should report marine accidents and the definitions of what a marine accident is.

**Initial notification**

To report an accident or incident you should phone the MAIB's dedicated accident reporting line on +44 (0)23 8023 2527 which is monitored 24 hours a day. After which you can expect to be asked to complete this accident report form (ARF).

Note: Those directly involved with the operation of a vessel (masters or skippers, and owners or managers) or authorities ashore (harbour authorities, inland waterway authorities, and the Maritime and Coastguard Agency) are obliged to notify the MAIB about any accidents or incidents.

**Completion of the ARF**

This form is intended to be completed electronically, with drop-down boxes to aid completion. Please try to answer as many questions as possible as it reduces the need for us to contact you for further information or clarification. If information is not known, select or type 'unknown' and if a question is not applicable, select or type 'n/a'. Numerical fields can be left blank.

If you are reporting multiple instances of accidents or marine incidents, these should be submitted on separate forms.

**The MAIB's aim is to help prevent further avoidable accidents, not to establish blame or liability**

Contact Details			
Person completing the form			Click or tap to enter a date.
Name	Title	First name	Last name
Email address	Enter your answer		Phone number Enter your answer
Address	Enter your answer		
Job role	Enter your answer		
Company Details			
Company name	Enter your answer		Company type Enter your answer
Primary contact	Title	First name	Last name
Email address	Enter your answer		Phone number Enter your answer
Address	Enter your answer		

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Vessel Details			
Name of vessel	Enter your answer		
Type of vessel	Choose an item	Contact number for vessel	Enter your answer
IMO number	Enter your answer	MMSI	Enter your answer
RSS/SSR number	Enter your answer	Call sign	Enter your answer
Flag state	Enter your answer		
Number of people on board at the time of the occurrence			
Crew	Enter your answer	Passengers	Enter your answer
		Others	Enter your answer
			<small>(Other includes: non-crew (eg pilots, shore workers) working on board vessels; people who have paid to be actively involved in crewing a vessel.)</small>
Did the occurrence involve a vessel's boat? (Do not include SAR involvement)	Choose an item		
Length overall (m)	Enter your answer	Registered length (m)	Enter your answer
Gross tonnage	Enter your answer	Year of build	Enter your answer
Hull material	Choose an item	Propulsion type	Choose an item
Occurrence Details			
Occurrence type	Choose an item	Date	Click to enter date.
		Local time	Enter your answer
		Time zone	Enter your answer
Sea state	Choose an item	Wind force	Choose an item
Natural light	Choose an item	Weather conditions	Choose an item
Visibility	Choose an item	Search & Rescue involved	Choose an item
Latitude (Direction)	Choose an item	Latitude	Enter your answer ° Enter your answer ' Enter your answer "
Longitude (Direction)	Choose an item	Longitude	Enter your answer ° Enter your answer ' Enter your answer "
Voyage Data			
Voyage segment	Choose an item	Vessel routing	Choose an item
Under pilotage or PEC direction	Choose an item		
Port of departure	Enter your answer	Port of destination	Enter your answer
Vessel operation(s) at the time of the occurrence			
Choose an item		Choose an item	

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Description of Occurrence
<p>Description of the sequence of events leading to and including the occurrence</p> <div style="border: 1px solid black; padding: 5px; min-height: 200px;">Enter your answer</div>
<p>Please state why you think the occurrence happened</p> <div style="border: 1px solid black; padding: 5px; min-height: 150px;">Enter your answer</div>
<p>Give details of any action recommended by you or anyone else to prevent similar occurrences in the future</p> <p><b>Recommended action</b></p> <div style="border: 1px solid black; padding: 5px; min-height: 40px;">Enter your answer</div> <p><b>Who issued the recommendation?</b></p> <div style="border: 1px solid black; padding: 5px; min-height: 40px;">Enter your answer</div> <p><b>Who was it addressed to?</b></p> <div style="border: 1px solid black; padding: 5px; min-height: 40px;">Enter your answer</div>

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Consequences			
Tick relevant box(es) if, following the occurrence, either of these were necessary to prevent a further accident		Shore assistance <input type="checkbox"/>	Towage <input type="checkbox"/>
Did the vessel sink	<input type="text" value="Choose an item"/>	Was the vessel unfit to proceed	<input type="text" value="Choose an item"/>
Was the cargo damaged	<input type="text" value="Choose an item"/>	Pollution from cargo	<input type="text" value="Choose an item"/>
		Was the vessel damaged	<input type="text" value="Choose an item"/>
		Pollution from bunkers	<input type="text" value="Choose an item"/>
Provide details of the damage to vessel			
<input type="text" value="Enter your answer"/>			
External damage to structures and environment <small>(exclude damage to other vessels involved in the occurrence)</small>	Third party damage	<input type="text" value="Choose an item"/>	Air pollution <input type="text" value="Choose an item"/>
Provide details of external damage			
<input type="text" value="Enter your answer"/>			
Were other vessels involved?	<input type="text" value="Choose an item"/>		
Provide details of the vessels involved (Please number accordingly)			
<input type="text" value="Enter your answer"/>			
Injuries & Fatalities			
Number of people with minor injuries (up to 72 hours incapacitated/off work)	<input type="text" value="Enter your answer"/>		
Number of people with serious injuries (over 72 hours incapacitated/off work)	<input type="text" value="Enter your answer"/>		
Number of missing persons	<input type="text" value="Enter your answer"/>	Number of lives lost	<input type="text" value="Enter your answer"/>
For each casualty please give the following details			
<b>Person 1</b>			
Person type	<input type="text" value="Choose an item"/>	Age	<input type="text" value="Enter your answer"/>
		Gender	<input type="text" value="Enter your answer"/>
		Nationality (by country)	<input type="text" value="Enter your answer"/>
Physical status	<input type="text" value="Choose an item"/>		
	Was a lifejacket used	<input type="text" value="Choose an item"/>	
Where on vessel did the injury happen	<input type="text" value="Enter your answer"/>		Was this an enclosed space? <input type="checkbox"/>
Type of Injury	<input type="text" value="Choose an item"/>		
	Part of the body injured	<input type="text" value="Choose an item"/>	

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Person 2							
Person type	<input type="text" value="Choose an item"/>	Age	<input type="text" value="Enter your answer"/>	Gender	<input type="text" value="Enter your answer"/>	Nationality (by country)	<input type="text" value="Enter your answer"/>
Physical status	<input type="text" value="Choose an item"/>		Was a lifejacket used	<input type="text" value="Choose an item"/>			
Where on vessel did the injury happen	<input type="text" value="Enter your answer"/>			Was this an enclosed space?	<input type="checkbox"/>		
Type of Injury	<input type="text" value="Choose an item"/>	Part of the body injured	<input type="text" value="Choose an item"/>				
Person 3							
Person type	<input type="text" value="Choose an item"/>	Age	<input type="text" value="Enter your answer"/>	Gender	<input type="text" value="Enter your answer"/>	Nationality (by country)	<input type="text" value="Enter your answer"/>
Physical status	<input type="text" value="Choose an item"/>		Was a lifejacket used	<input type="text" value="Choose an item"/>			
Where on vessel did the injury happen	<input type="text" value="Enter your answer"/>			Was this an enclosed space?	<input type="checkbox"/>		
Type of Injury	<input type="text" value="Choose an item"/>	Part of the body injured	<input type="text" value="Choose an item"/>				
For additional casualties please answer the same questions within the text box							
<input type="text" value="Enter your answer"/>							
Additional Information							
Additional data or information considered relevant (ship, cargo or other damage)							
<input type="text" value="Enter your answer"/>							

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## Appendix 2 - Checklist for safety officer`s inspection

# Checklist for safety officer's inspection

The following are examples of questions that the safety officer should consider. This is not intended to be an exhaustive list, and should be varied according to the particular design or condition on a particular ship

### Means of access/safe movement

- Are means of access, if any to the area under inspection (particularly ladder and stairs), in safe condition, well lit and unobstructed?
- If any means of access is in a dangerous condition, for instance when a ladder has been removed, is the danger suitably blocked off and have warning notices been posted.
- Is access through the area of inspection both for transit and working purposes clearly marked, well lit, unobstructed and safe?
- Are fixtures and fittings over which seafarers might trip or which project (particularly overhead, thereby causing potential hazards), suitably painted, cushioned or marked?
- Is any gear that has to be stowed within the area suitably secured?
- Are guard rails in place, secure and in good condition?
- Are all openings through which a person could fall suitably fenced?
- If portable ladders are in use, are they properly secured and at a safe angle?

### Working environment

- Is the area safe to enter?
- Are lightning levels adequate?
- Is the area clear of rubbish, combustible material, spilled oil, etc.?
- Is ventilation adequate?
- Are seafarers adequately protected from exposure to noise where necessary?
- Are dangerous goods and substances left unnecessarily in the area or stored in a dangerous manner?
- Are loose tools, stores and similar items left lying around unnecessarily?

### Working Conditions

- Is machinery adequately guarded where necessary?
- Are any necessary safe operating instruction clearly displayed?
- Are any necessary safety signs clearly displayed?
- Are permits to work used when necessary
- Are seafarers working in the area wearing any necessary protective clothing and equipment?
- Is that protective clothing and equipment in good condition and being used correctly?
- Is there any evidence of defective plant or equipment and if so what is being done about it?
- Is the level of supervision adequate, particularly for inexperienced seafarers?
- What practicable safety improvements could be made?

## General

- Are all statutory regulations and company safety procedures being complied with?
- Is the safety advice in publications such as COSWP, merchant shipping notices, etc. being followed where possible?.
- Can the seafarers in the area make any safety suggestions?
- Have any faults identified in previous inspections been rectified

## 6. Document status

Issue no.	Date	Author
1674 P	15.12.2004	AB/EF
1674 A	03.02.2005	AB/EF
1674 A1	10.04.2006	AB/EF
1674 A2	27.02.2007	AB/EF
1674 A3	01.01.2008	AB
1674 A4	02.04.2008	AB/JD
1674 A5	20.05.2009	AB
1674 B1	23.03.2012	AB
1674 B2	20.11.2014	AB
1674 C1	05.01.2016	AB
1674 C2	20.09.2016	AB
1674 C3	07.08.2018	AB
1674 C4	18.11.2019	AB
1674 4.0	25.11.2020	IG

## 7. Changes in the document

Issue no.	Paragraph no.	Description
1674 A1 1674 A2	Chap. 3.4 Para 1.9	Added marks to questions. Added new paragraph 1.9, Evaluation of on board course.
1674 A3	Para 1.5 – 1.8	Updated with new email and text.
1674 A4	Chapter 4	Updated paragraph 4
		Chapter 1 is new and all chapters re-numbered.
1674 A5	Chapter 4	General updating of chapter.
1674 B1	Major revision	Major revision, CBT module #149 added.
1674 B2	Para 2.9	Removed “CBT Login ID” added “Ships flag”
1674 C1	Major revision	Text updated according to COSWP 2015 edition, questions and exercises reviewed and updated. CBT #2, #149 removed and replaced with #306 and #307. Ships flag added in para 1.9
1674 C2	Para 1.3	Updated 1.3 with “Candidate must at least obtain 95% completion and a test score of 75% on all CBT`s”
1674 C3	Para 1.6 Para 1.7 Para 4.1.6 Para 4.1.7 Para 5.3.8 Para 7	Updated text Updated text New text New text Added text Updated evaluation form
1674 C4	Appendix 1	Updated MAIB Accident Report Form
1674 4.0		New Ocean TG course template. Split procedure and workbook, changed version numbering