

**Suggestions:**

- Every crew member should take part in a fire drill each month
- smoke machines have their benefits during fire drills, but should be used with caution. Adhere to any safety notices or guidance regarding their use
- onboard training and instructions on how to use the fire extinguishers and available fire-fighting equipment should be given at the same time as the drills
- any equipment used during a drill should be returned to its fully operational condition immediately. Any faults should be fixed as soon as possible
- crew should be trained to fight fires and deal with a simultaneous abandon ship order. This should include all members of the crew
- fire drills should be carried out as if there is an actual emergency
- fire pumps should be started using sufficient hoses to demonstrate that the system is working correctly
- operate all watertight and fire doors
- all crew members should be aware of:
  - instruction and procedures on extinguishing small fires
    - how a single crew member can put a fire out
    - what is required when extinguishing a fire involving dangerous goods, electrical installations and potential liquid fires
    - how to use the ship's fire-fighting equipment and participate in post drill clean up and stowage of the equipment
    - dangers from fire fighting systems, eg CO<sub>2</sub> discharges
    - how to use breathing apparatus, fireman's outfits and personal equipment
  - instruction on how to escape from any location on the ship, and the importance of closing doors once a room has been searched
  - first aid techniques.

## Record keeping

- Date and details of fire drills must be recorded in line with SOLAS regulations
- a record must be kept of crew members who have taken part in drills. New crew members should be assessed before the ship leaves port and the main company office notified of their training status
- the equipment tested in each drill should be recorded by date
- an entry should be made in the log for each drill. The information should include the date, time, how long the drill lasted, the number of fire hoses used, a statement about the condition of the fire equipment, watertight door mechanisms and valves. If drills do not take place, or only a partial drill is carried out, an entry should also be made in the log.

## Simulate communications:

- Inform the Coastguard (in port, call the fire brigade) and DPA/Duty Manager. You should advise them of the following information:
  - Position of vessel
  - nature and size of fire (details of cargo)
  - number of crew onboard
  - measures currently being taken to fight or contain the fire
  - nature of assistance required.

## Actions

Initiate fire containment and fire-fighting measures.

If fire is getting worse or is out of control consider using a fixed fire-fighting system.

## Actions to consider at the end of drill

If fire is extinguished or well under control:

- Consider temperature/likelihood of re-ignition
- check adjacent compartments to ensure that fire has not spread by heat transfer
- consider restoring ventilation to clear smoke.

## Safety drill debrief

This should be conducted as soon as the drill is completed, while adrenalin levels are still high and memories are fresh.

In no particular order, some of the general points that should be covered are:

- What have we learned?
- What went well?
- How was the emergency party's response and actions?  
*(This should include instructions for fire-fighting, use of fire extinguishing systems, emergency equipment including breathing apparatus and lifelines, use/control of emergency fuel stops and ventilation)*
- What did not go so well?
- How were communications?
- What equipment was used?
- What equipment hindered the effort?
- Was fire equipment in the most appropriate location?
- Do any items of fire equipment have to be deployed better onboard?
- Did anyone have to run and get anything?
- Are there any changes that should be added to checklists at the EHQ or on the bridge?
- Record of experience, ie how many minutes use from SCBA for rescue party?
- Other suggested improvements from the team?
- Were members of the rescue party in the correct roles to suit their strengths?
- Were there enough men in the SCBA rescue party to manage the fire?



## 5. Passenger Drills



### Passenger/cruise vessels – Evacuation/mustering/abandoning/crowd control

Cruise, ferries and other ships that carry passengers in high numbers have the additional difficulty of controlling untrained, confused and frightened people of different ages, nationalities and physical capabilities during emergencies.

The Master must ensure that the persons designated to take charge of passenger muster stations, or who have designated responsibilities that relate to the control of passengers, are qualified in crowd management and/or crisis management and human behaviour, as required by STCW and the flag State. The use of decision support systems for the Master is required by many flag States and is recommended.

Training in passenger mustering and evacuation is normally conducted simultaneously with, and incorporating other, emergency drills, eg fire. However, separate specific tuition in crowd management and the use marine evacuation systems (MES) should be encouraged.

Before any drills are commenced passengers must be advised not to panic at any alarm and, wherever practicable, they should be encouraged to participate. This adds a degree of realism to the drill and improves the confidence of the crewmembers directly involved.

#### Suggested drill format:

- On hearing the general emergency alarm (and public address) all crewmembers should go to their muster station
- the crewmembers in charge of the muster stations should report which crew are in attendance and the passenger numbers present. Passengers should be advised about wearing appropriate clothing and kept informed during the drill. It is important that crewmembers gain confidence through practicing communication with and direction of the passengers
- a ship search by designated crew may be undertaken at this time, or after the initial muster

- the bridge or emergency control station should, on receipt of crew passenger numbers, collate the information and report to the Master
- a search for missing persons should be completed
- when advised by the Master or officer in charge of communications, passengers should be shown and assisted with the donning of lifejackets.

Once satisfied that the muster and/or emergency drill is complete the abandon ship drill can be commenced. Depending on the number of passengers carried, the abandon ship drill is likely to employ a number of stages.

The appropriate signal should be sounded and a verbal order given by the Master. The crew should maintain control, and direct passengers to the designated lifeboat or liferaft stations. Crew should be given instruction in accordance with their duties. Passengers should be checked and instructed as to what would be required of them.

The initial stage normally involves:

- Preparing lifeboats and rescue boat(s) for lowering and reporting the number of crew and passengers embarked to the bridge once ready for launch
- boats should be launched only on the Master's command
- nominated crewmembers should search their designated ship zone to check it is clear and report findings when complete.

After completion of the first stage each subsequent stage involving the deployment of the MES, liferaft launching, boarding and towing, should be controlled and ordered by the Master. It would be expected that the Master, bridge team and senior staff would abandon ship during the final stage.

Additional considerations

- Crew should wear distinctive clothing to identify them. Jackets are useful but not as easy to see as hardhats when they are also wearing lifejackets
- simulate injuries to crew or passengers and encourage crew to undertake other duties
- have crew or passengers simulate difficult behaviour