



CIRCULAR LETTER

Piraeus, 19 August 2019

To: Shipowners, Operators and Masters

Guidance on Tokyo, Black Sea, Indian Ocean and Paris MoUs Concentrated Inspection Campaign (CIC) on emergency systems and procedures

Dear Sirs,

In addition to the Circular regarding the Paris and Tokyo **Concentrated Inspection Campaign (CIC) on emergency systems and procedures**, AMC provides analysis and guidance to Shipowners, Operators and Masters in accordance with the issued questionnaire.

You shall find herebelow the analysis of the aforementioned questionnaire:

1. Is the damage Control plan readily available on board?

Damage Control Plans and Damage Control Booklets are required by SOLAS (Chapter II-1 Regulation 19, dependent on ship type, construction date and length) since 1992. MSC.1/Circ.1245 provides additional guidance on the development of Damage Control Booklets and the necessary information to be included therein.

In order to comply with this requirement, the Damage Control Plan and Booklet must be:

- Ship specific.
- Available in hardcopy and readable.

Furthermore, relevant software for Damage stability should be available and the concerned Officers must be properly trained and familiar with same.

2. Is the public address system capable of broadcasting emergency announcements?

Vessels above 500 gross tonnage and passenger vessels are required by SOLAS/IMO to be equipped with a public address (PA) system.

It should be ensured that the PA system is:

- Properly fitted and the loudspeakers are working correctly.
- Operable from bridge and any other space as required by Flag.
- Audible around the vessel as required.
- Protected against unauthorized use.

For passenger ships, the PA system is required to be connected to an emergency source of electrical power.

3. For ships with water level detectors installed, is the system and alarm arrangements operational?

Bulk carriers must be fitted with an approved water ingress detection system to comply with the SOLAS XII Regulation 12.

Water detection systems are required onboard ships in each cargo hold and in other spaces. Same should be equipped with audible and visual alarms. The audible and visual alarms panel shall be located at the bridge.

It should be ensured that:

- Alarm system is fully operational, including both visual and audible alarms.
- Sensors are fitted properly.
- Alarms are properly displayed on bridge (test function must be carried out).
- Maintenance records are readily available and in accordance with manufacturer's instructions.
- Spare sensors exist onboard.

4. Is the steering gear system and its related emergency alarms operational?

The steering gear and emergency steering gear should be checked and tested according to SOLAS V Regulation 26.

It should be ensured that:

- Steering gear and control systems are in good operational condition and free from oil leaks.
- Rudder stock / sealing is clean with no water or oil leaks.
- Bearing is in good condition.
- Switchboards are in good condition.
- Means of communication between Bridge and Steering Gear Room are provided and communication is audible from both sides.
- Gyro compass repeater is synchronized (if applicable).
- Rudder angle indicator is properly operating and synchronized.
- Main / emergency steering changeover procedures are displayed on Bridge and Steering Gear Room.
- Crew is trained properly for emergency steering and records of drills are kept and are readily available.
- Operational Test with one / two pumps has been conducted from 30° port to 35° stbd in 28 seconds and vice-versa.
- Overload Alarm is operable.
- Escape route is marked.

5. Does the muster list specify details in accordance with requirements of SOLAS 1996-1998 Amendment, Chapter III, Regulation 37?

Muster lists must be readable, updated as necessary and displayed in conspicuous places onboard, including the navigation bridge, engine room and crew accommodation spaces.

It should be ensured that the muster list provides:

- Details of the general emergency alarm, the public address system and actions to be taken by passengers and crew members in the event of an emergency.
- Details/instructions of how the order to abandon ship shall be given.
- The responsible Officers for the maintenance of life-saving and fire-fighting appliances and for ensuring that same are ready for immediate use.
- Details of the substitutes for key personnel who may become disabled.
- The duties assigned to the each crew member.
- Updated list of the crewmembers onboard.
- Proof that the crew members are familiar with the emergency duties that are assigned to them.

On passenger ships the muster list has to be approved and must show the duties assigned to the crew members in relation to the passengers. Each passenger ship must have procedures for locating and rescuing passengers from their staterooms.

6. Does the emergency source of electrical power supply its power correctly to essential equipment for safety in emergency?

The emergency source of electrical power must supply power properly to essential equipment, including emergency lighting, which must be properly installed and fully operational.

Essential equipment for cargo ships includes:

- General alarm.
- Navigation lights and other lights.

- Daylight signaling light, ship's whistle, manually operated call points and all internal signals.
- Navigational equipment.
- Fire detection and fire alarm system.
- Steering gear.
- VHF radio installation and MF/HF radio installation.

In addition, for passenger ships, essential equipment includes:

- All internal communication equipment.
- Sprinkler pump (if fitted).
- Emergency bilge pump and all relevant equipment to the operation of electrically powered, remote controlled bilge valves.
- Power-operated watertight doors together with their indicator and warning signal.
- Emergency arrangements to bring the lift cars to deck level for the safe abandon ship operation.

Confirm that the emergency source of electrical power does supply the essential equipment described above. Ensure that Masters, Officers and Engineers are familiar with the procedures for a black out test in case this is required by the Port State Control Officer. It should be ensured that essential equipment is operational and has been properly maintained.

Emergency lighting for cargo ships is required:

- At every embarkation station and over the sides.
- In all service and accommodation alleyways, stairways and exits, personnel lift cars and trunks.
- In the machinery spaces and main generating stations, including their control positions.
- In all control stations, machinery control rooms and at the main and emergency switchboard.
- At all stowage positions for firemen's outfits.
- At the steering gear.
- At the fire pump, at the sprinkler pump, at the emergency bilge pump and at the starting positions of their motors.
- At every muster station.

- In all tankers' cargo pump-rooms as available.

In addition, for passenger ships emergency lighting is required:

- At every muster station.
- In alleyways, stairways and exits giving access to muster and embarkation station.

For ro-ro passenger ships, supplementary lighting is required in all public spaces and alleyways. It must be ensured that same is capable of providing electric lighting for at least three hours when all other sources of electrical power have failed. In crew spaces, portable rechargeable battery- operated lamps should be provided in alleyways, recreational spaces and every working space normally occupied unless supplementary lighting is provided as per in the aforementioned public spaces.

It should be confirmed that emergency lighting for embarkation stations and over the sides is in good order and properly working. Also, it should be ensured that emergency lights are clean, properly working and that same are not damaged.

7. (a) Where the emergency source of electrical power is a generator, is it in correct operational condition?

It should be confirmed that the emergency generator can supply power to the emergency switchboard within 45 seconds from initial power loss. A battery capable of starting the generator at least three consecutive times should be installed and in good condition. Electric, hydraulic, spring start and compressed air starters can also be installed. It should be ensured that there is sufficient fuel for the required operation time of the emergency equipment (36 hours for passenger ships and 18 hours for cargo ships).

It should be ensured that indicator gauges for measuring lube oil pressure, cooling water temperature, RPM, etc. are in good working order. It should be confirmed that the state of frequency, voltage and insulation resistance can be verified and that safety devices for the protection of the prime mover are operational. Crew members should be familiar with the testing equipment, especially in cases where a separate automatic starting system testing device is installed.

7. (b) Where the emergency source of electrical power is an accumulator battery, are the batteries and its switchboard in good condition?

It should be ensured that the emergency batteries and charge switches have been properly installed.

Furthermore, battery compartments should be suitably ventilated.

It should be confirmed that the emergency batteries have been regularly checked as part of the ship's maintenance system and that records are up to date. The cable connections should be checked for any electrolyte leakage. It should be confirmed that the indicators on the emergency switchboard are in good order.

8. Is emergency fire pump in full operational condition?

The emergency fire pump must be capable of producing at least two jets of water at the required water pressure. The emergency fire pump may be driven by an electric motor powered from the emergency generator or from a diesel engine. The fuel tank must have sufficient fuel for at least three hours and the reserve fuel must be sufficient for 15 more hours.

It should also be ensured that:

- The pump is in good condition, tested and ready for use.
- The pump is free from leakage (seawater, hydraulic oil, etc.)
- The delivery water pressure (outlet) is sufficient to operate 2 fire hoses simultaneously at a distance of at least 12m.
- The Start / Stop from local and / or remote position is marked.
- Operating instructions in the working language of the crew are posted at appropriate locations.

- Records showing instructions, drills and training of responsible personnel are readily available.
- The pressure gauges fitted on both suction and delivery pipe are in working condition.
- The responsible Officer is assigned the pump's maintenance and inspection.
- The emergency fire pump is maintained as per manufacturer's recommendations and the relevant records are available.

The most common detainable items are:

- pump malfunction;
- insufficient pressure; and
- pump corrosion.

9. Where a fire drill and/or abandon ship drill was witnessed, was it found to be satisfactory?

Each crew member shall be provided with a muster card with his designated duties in major emergency situations (abandon, fire, flooding, etc.) as these are described in the muster list. Any Supernumeraries or Passengers shall be instructed in the location and use of lifejackets, lifeboats, emergency stations and escape routes.

Emergency response shall be characterized by calm and methodical execution of pre-established and well-rehearsed responses in difficult circumstances. Each involved crewmember must be well aware of their duties during an emergency and must be properly trained so as to effectively perform same.

The reporting procedure which is to be followed by the Master or other authorized person is based on the IMO Resolution A.851 (20) as amended by MEPC.138(53).

Abandon Ship

The decision to abandon ship shall be taken by the Master or, if incapacitated, by the person upon whom the command has been delegated (usually the C/O).

Once the decision to abandon ship has been made, all personnel shall be instructed to embark to their assigned lifeboats. If time permits, extra food and water should be taken as a precaution against the possibility of hazards such as dehydration caused by vomiting or burns.

Personnel should remain calm and follow the instructions of the Officer in charge.

Crew must follow their duties according to muster list.

Fire

Every member of the crew must be familiar with all aspects of the firefighting operations, including the use of all the firefighting equipment provided onboard. Instructions should include fire prevention specifically for cargo compartments. On board instructions regarding firefighting are supplementary to the firefighting training courses ashore and are ship equipment specific, taking into consideration the nature of the on-board fire hazards.

Specific and detailed information as well as necessary fire safety precautions regarding the crew responsibilities for the general fire safety of the vessel while loading and discharging cargo and while under way should be included in the Company's Management System.

Warning that fire has broken out can be made by:

- The person discovering the fire.
- The fire detection and alarm system.

The first few minutes after a fire is discovered are vital and the measures to be taken should be completely familiar to all Officers and crewmembers. The Master's priorities should be to:

- Ensure safety of all persons onboard.

- Prevent environmental pollution.
- Limit damage to vessel and cargo.

Fire is the most common casualty encountered at sea. Emergency fire practices must be regularly carried out and be as thorough and realistic as possible to exercise all crewmembers in their duties.

Crew must follow their duties according to muster list.

10. For the above checked emergency equipment, are the relevant crews familiar with the operation?

Crewmembers will be requested to demonstrate their knowledge on the emergency equipment. Records of Drills and Trainings should be available onboard and according to Flag requirements and according to Company's Management System Manual requirements.

The areas on which they will be requested to demonstrate their familiarity include but are not limited to:

- Public address system.
- Water level detectors.
- Steering gear.
- Emergency source of electric power (emergency switchboard, generator or accumulator batteries).
- Emergency fire pump.

11. Has the ship been detained, as a result of the Inspection Campaign?

In the event that essential equipment is non-operational (e.g. due to planned maintenance or a failure of equipment), Masters and Officers should ensure this is reported to the Port State Control Officer before an inspection commences. This may still result in a deficiency being raised, but it can prevent that deficiency being recorded as a detainable deficiency.