

PSC Related
Technical Notice
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Subject:

Joint Concentrated Inspection Campaign (CIC) on Emergency Systems and Procedures.

The Maritime Authorities of the Tokyo and the Paris Memoranda of Understanding (MoU) on Port State Control will launch a joint Concentrated Inspection Campaign (CIC) on Emergency Systems and Procedures.

The CIC, which runs from **1 September-30 November 2019**, aims to ensure that:

- Ships can respond appropriately and promptly to emergency situations
- Shipping companies and ship managers are reminded of the importance of ship emergency systems
- On-board emergency systems are operated properly and managed efficiently
- Masters and all seafarers understand their assigned roles, duties and emergency procedures and can act immediately when needed.

Port State Control Officers (PSCOs) will use the [this questionnaire](#) to evaluate:

- Normal operation of main emergency systems, such as emergency fire pumps, emergency generators and steering gear
- Maintenance and operation of systems are being carried out at the proper intervals
- Ship's officers and crew's familiarity with emergency systems and equipment operation.

If deficiencies are found, action by the port state can vary from recording the deficiency and instructing the master to rectify it within a certain period to detention until serious deficiencies have been rectified.

Shipowners and managers are advised to highlight this information to ships and to ensure masters and seafarers are ready to meet the requirements of the CIC.

Q1. Is the damage control plan readily available on board?

1. The PSCO should check:

- That damage control plans and booklets are available onboard.

Q2. Is the public address system capable of broadcasting emergency announcements?

1. The PSCO should spot check:

- That the public address system provides a loudspeaker installation enabling the broadcast of messages into accommodation spaces and muster stations.

2. Requirements/Guidance:

On board passenger ships, the public address system should be connected to the emergency source of electrical power.

If the cargo ship constructed before 1/7/1986, and the ship does not have a public address system, the answer to this question is "N/A".

Q3. For ships with water level detectors installed, is the system and alarm arrangements operational?

1. The PSCO should spot check:

- That the sensors and the alarm system for the water level detector are installed and activated properly.

2. Requirements/Guidance:

Water level detectors are installed on single hold cargo ships other than bulk carriers subject to 'SOLAS 2006 Amendments Chapter II-1 Regulation 25' or bulk carriers subject to 'SOLAS 2006 Amendments Chapter XII Regulation 12.

Q4. Is the steering gear system and its related emergency alarms operational?

1. The PSCO should check:

- That power units of main and auxiliary steering gears are arranged to restart automatically when the power is restored after a power failure.
- In the event of a failure of main and auxiliary steering gears or a low level of each hydraulic fluid reservoir, as applicable, an audible and visual alarm is given.

2. Requirements/Guidance:

Audible and visual alarms in the event of a failure of the main or auxiliary steering gears, or in the event of a low level of the hydraulic fluid reservoirs, must be fully operational. Officers and engineers should ensure they are familiar with the operation of the steering gears and the alarm systems provided on the navigation bridge and in the machinery space. This should include being able to verify the proper operation of sensors for a low-level alarm.

When determining if the ship, constructed on or after 1/9/1984, complies with SOLAS (as amended), Chapter II-1 Regulation 29, the PSCO may verify whether:

- (a) If applicable, an alternative power supply for steering gear is provided as the requirement of SOLAS (as amended) Chapter II-1 Regulation 29.14. The PSCO should check whether any one of the steering gear powers are connected to emergency source of electrical power (Emergency Switch Board) or an independent source of power located in the steering gear compartment during the inspection,
- (b) The main and auxiliary steering gear power units, as defined by SOLAS (as amended) Chapter II-1 Regulation 3.3, restart automatically when power is restored after the power supply is cut off. In event of a power failure to any one of the steering power units, an audible and visual alarm is given on the navigation bridge,
- (c) Hydraulic power-operated steering gear is provided with audible and visual alarms on the navigation bridge and in the machinery space in case of a low level of each hydraulic fluid reservoir. PSCO could require the crew to verify proper operation of sensors (e.g. a float switch) for a low-level alarm.

Note 1:

Every tanker, chemical tanker or gas carrier constructed before 1/9/1984 refer to the retroactive requirements of paragraphs 19 and 20 in SOLAS (as amended) Chapter II-1 Regulation 29

Q5. Does the muster list specify details in accordance with the requirements of SOLAS 1996-1998 Amendment, Chapter III, Regulation 37?

1. The PSCO should check:

-That the muster lists are kept up to date by the ship's Master in accordance with the requirements of SOLAS 1996-1998 Amendments Chapter III Regulation 37.

-That muster lists complying with the requirements of regulation 37 are exhibited in conspicuous places throughout the ship including the navigation bridge, engine-room and crew accommodation areas.

2. Requirements/Guidance:

-When determining if the muster list is in accordance with SOLAS 1996-1998 Amendments Chapter III, Regulation 37, the PSCO may verify whether:

(a) the muster list specifies including:

- details of the general emergency alarm and public address system and action to be taken by crew and passengers when alarm is sounded,
- how the order to an abandon ship will be given,
- which officers are assigned to ensure that life-saving and fire appliances are maintained in good condition and are ready for immediate use,
- substitutes for key persons who may become disabled, taking into account that different emergencies may call for different action

(b) the muster list shows the duties assigned to the different members of crew prescribed by SOLAS 1996-1998 Amendments Chapter III Reg. 37.3,

(c) the muster list is prepared before the ship proceeds to sea and updated if any change takes place in the crew which necessitates an alteration in the muster list,

(d) the format of the muster list on passenger ships is approved and the muster list shows the duties assigned to members of crew in relation to passengers in case of emergency prescribed by SOLAS 1996-1998 Amendments Chapter III Reg. 37.6,

(e) each passenger ship shall have procedures in place for locating and rescuing passenger trapped in their staterooms.

Crew members should ensure they are familiar with the emergency duties assigned to them.

Q6. Does the emergency source of electrical power supply its power correctly to essential equipment for safety in an emergency?

1. The PSCO should spot check:

- That the emergency lighting is properly installed and in working order.
- That the emergency source of electrical power supplies its power properly to the essential equipment, as required by the convention.

2. Requirements/Guidance:

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 signalling 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
- Emergency bilge pump and all essential equipment for 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 escape of persons

Confirm that the emergency source of electrical power does supply the essential equipment identified 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. Ensure that essential equipment is operational and has been properly maintained.

Emergency lighting for cargo ships includes:

- 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 each 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, at the starting positions of their motors
- At every muster station
- In all cargo pump-rooms of tankers

In addition, for passenger ships:

- At every muster station
- In alleyways, stairways and exits giving access to muster and embarkation station.
- For ro-ro passenger ships, the supplementary lighting required in all passenger public spaces and alleyways, 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 shall be provided in alleyways, recreational spaces and every working space normally occupied unless supplementary lighting as required in passenger spaces is provided.

Confirm that emergency lighting for embarkation stations and over the sides is working and in good order. Ensure emergency lights are clean and working and are not damaged.

Q7a. Where the emergency source of electrical power is a generator, is it in correct operational condition?

1. The PSCO should check:

- All means of starting for the emergency generator are operated properly.
- The emergency generating system is in good condition of operation.
- If a separate device is installed to test the automatic starting, it is working normally.

2. Requirements/Guidance:

Confirm that the emergency generator can supply power to the emergency switchboard within 45 seconds. A battery capable of starting at least three consecutive times should be installed and in good condition. Electric, hydraulic, spring start and compressed air starters can be installed. Check there is sufficient fuel for the

emergency equipment operation time (36 hours for passenger ships and 18 hours for cargo ships).

Ensure indicator gauges for items such as lub. oil pressure, cooling water temperature and RPM are working. Confirm the state of frequency, voltage and insulation resistance can be confirmed and that safety devices for the protection of the prime mover are operational. Crew members should be familiar with the test equipment where a separate device is installed to test the automatic starting system.

Q7b. Where the emergency source of electrical power is an accumulator battery, are the batteries and its switchboard in good condition?

1. The PSCO should check:

- That emergency batteries and charge switches are properly installed.
- That the charging for accumulator batteries and the indicators are installed on the emergency switchboard in good order.

2. Requirements/Guidance:

Ensure the emergency batteries and charge switches have been properly installed. Battery compartments are to be suitable ventilated.

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

Q8. Is the emergency fire pump in full operational condition?

1. The PSCO should check:

- That the fixed emergency fire pump is capable of producing at least two jets of water at or above the required pressure.
- That power source of an emergency fire pump is supplied from outside the machinery space.

2. Requirements/Guidance:

The emergency fire pump may be driven by an electric motor powered from the emergency generator or from a diesel engine. Confirm the fuel tank has sufficient fuel for at least three hours and that reserve fuel is provided outside the machinery space, sufficient for an additional 15 hours.

Cargo ship less than 2,000 tons gross tonnage, if a fire in any one compartment could put all the pumps out of action the alternative means of providing water for fire-fighting purposes are to the satisfaction of the Administration. Usually, the alternative mean is a portable emergency fire pump.

Q9. Where a fire drill and/or abandon ship drill was witnessed, was it found to be satisfactory?

1. The PSCO should check:

- That the fire drill and abandon ship drill have been carried out as scheduled and recorded.
- That it was found to be satisfactory where in case the fire drill or abandon ship drill was witnessed.

2. Requirements/Guidance:

Confirm that records of fire and abandon ship drills are maintained and up to date. If it has not been possible to carry out a drill as scheduled, the reason is to be recorded in the ship's logbook. Ensure that crew members are familiar with their duties and are capable of safely operating the lifesaving and firefighting equipment. The second-in-charge of emergency teams should practice taking charge of the team to ensure they are confident to take over a team leader.

Q10. For the above checked emergency equipment, are the relevant crews familiar with the operation?

1. The PSCO should check:

- If the crew responsible for the handling of the emergency equipment is familiar with the proper operation.

2. Requirements/Guidance:

Identified, responsible crew members must be familiar with the operation of the following equipment and may be asked to give a practical demonstration of its use:

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

[Attachment](#)

PSCOs Questionnaire - CIC on Emergency Systems and Procedures