Guidance to Hong Kong Registered Ships for preparing of the Concentrated Inspection Campaign on Fire Safety (Period from 1 September to 30 November 2023)

Introduction

A Concentrated Inspection Campaign (CIC) on Ship's Fire Safety will be launched from 1 September to 30 November 2023 in the Tokyo Memoranda of Understanding (MOU) region in conjunction with Paris MOU region. A ship will be subject to one inspection under this CIC during this period, and the inspection will be carried out in conjunction with the normal PSC inspection. Hence, a copy of the PSC inspection report (Form A and B) with the completed CIC questionnaire shall be kept onboard for record.

Purpose

The CIC intends to assist ship staff to assess the fire safety conditions. It will also create awareness among ship staff and ship owners about the importance of specifically address areas where there are reoccurring deficiencies with respect to fire safety. Port State Control Officers (PSCOs) will use a list of 10 questions to assess that fire-fighting systems and equipment comply with the relevant requirements, that the master and crew members are familiar with operations relating to fire safety, and that equipment is properly maintained and functioning.

Questionnaire Guidance

Question No.1*

Are the emergency escape routes maintained in a safe condition?

1. Ship Manager, Master and responsible officer shall ensure that:

- (a) escape routes are clear of obstacles and accessible.
- (b) securing devices of emergency exit hatches to open deck, if applicable, are operational and of a type to be opened from both sides.
- (c) main and emergency lighting are operational.

2. Requirements:

- (a) Escape routes shall be maintained in a safe condition and clear of obstacles so that persons onboard can safely and swiftly escape to the lifeboat and liferaft embarkation deck.
- (b) The overhead hatches¹ fitted along the escape routes with securing devices should be of a type which can be opened from both sides and the maximum force needed to open the hatch cover should not exceed 150 N. Further to use of a spring equalizing, counterbalance or other suitable device on the hinge side to reduce the force needed for opening is acceptable.
- (d) Emergency lighting for escape routes on Cargo Ships should be able to supply power for a period of 18 hours.
- (e) The means of escape systems and appliances shall be kept in good order so as to ensure their required performance if a fire occurs.

- (a) For ships constructed on or after 25/5/1980 and before 1/9/1984: 1974 SOLAS II-2/15;
- (b) For ships constructed on or after 1/9/1984 and before 1/7/1986: 1981 SOLAS II-2/45, 1981 SOLAS II-1/43 and 1981 SOLAS II-2/21;
- (c) For ships constructed on or after 1/7/1986 and before 1/2/1992: 1981 SOLAS II-2/45, 1983 SOLAS II-1/43 and 1981 SOLAS II-2/21;
- (d) For ships constructed on or after 1/2/1992 and before 1/7/2002: 1981 SOLAS II-2/45, 1988 SOLAS II-1/43 and 1981 SOLAS II-2/21; and
- (e) For ships constructed on or after 1/7/2002: 2000 SOLAS II-2/13.1, 2000 SOLAS II-1/43 and 2000 SOLAS II-2/14.2

¹ Refer to the Unified Interpretation in section 6 of MSC.1/Circ.1456

^{*} Ship may be considered for detention if the answer is "No" for questions.

Question No.2*

Are fire doors maintained in good working condition?

1. Ship Manager, Master and responsible officer shall ensure that:

- (a) fire doors and self-closing arrangements are complying with the Fire Control Plan.
- (b) all fire door control panel indicators are functional, if provided.
- (c) all fire doors are in operation locally.
- (d) remote control function of fire door's remote release device is in operation.
- (e) self-closing fire doors are not improperly lashed in open position.
- (f) fire doors can be closed and latched properly.
- (g) fire doors of category A machinery spaces are reasonably gastight and self-closing.
- (h) any modification and/or repair of fire doors has been accepted by ship's Administration.
- (i) fire doors have the appropriate fire resistance Class A or B for the bulkhead in which they are installed.

2. Requirements:

- (a) Fire doors must be operational at all times to assist in containment of a fire.
- (b) The fire resistance of doors shall be equivalent to the division in which they are fitted.
- (c) The release mechanism of self-closing doors shall not be fitted with hold-back hooks. However, hold-back arrangements fitted with remote release devices of the fail-safe type may be utilized.

- (a) For ships constructed on or after 1/9/1984 and before 1/7/2002: 1981 SOLAS II-2/47;
- (b) For ships constructed on or after 1/7/2002 and before 1/7/2010: 2000 SOLAS II-2/9.4.2; and
- (c) For ships constructed on or after 1/7/2010: 2008 SOLAS II-2/9.4.2.

Ouestion No.3*

Has the fixed fire detection and fire alarm systems, been periodically tested in accordance with the requirements of the Administration?

1. Ship Manager, Master and responsible officer shall ensure that:

- (a) fixed detection and fire alarm control panel indicators of monitoring cargo and machinery spaces, including the detectors, manual call points, and emergency power supply switchover are periodically tested.
- (b) general fire detection, fire alarm panel and repeaters have no faults and/or alarms.
- (c) detectors and manual call points are not damaged, obstructed or painted over.
- (d) test records of the fixed fire detection and alarm systems were properly maintained.

2. Requirements:

- (a) The fire detection system shall be periodically tested by means of equipment producing hot air at the appropriate temperature, or smoke or aerosol particles having the appropriate range of density or particle size, or other phenomena associated with incipient fires to which the detector is designed to respond.
- (b) Maintenance, testing and inspections shall be carried out based on the guidelines² developed by the International Maritime Organization (IMO) and in a manner having due regard to ensuring the reliability of fire-fighting systems and appliances.

3. Convention Reference:

(a) For ships constructed on or after 1/9/1984 and before 1/7/2002: 1981 SOLAS II-2/13.1.13, 2000 SOLAS II-2/14.2.2.1; and

(b) For ships constructed on or after 1/7/2002: 2000 SOLAS II-2/7.3, 2000 SOLAS II-2/14.2.2.1.

² Refer to the Revised Guidelines in MSC.1/Circ.1432, as amended by MSC.1/Circ.1516

Question No.4*

Are ventilation closing appliances³ capable of being closed?

1. Ship Manager, Master and responsible officer shall ensure that:

- (a) ventilation closing appliances can be closed properly.
- (b) ventilation closing appliances are in good condition without holes or severe deterioration.
- (c) the operation location is not obstructed by equipment, stores or cargo.
- (d) ventilation closing appliances are permanently marked with open/closed indication.
- (e) battery room ventilators are fitted with closing appliance with an appropriate warning notice.

2. Requirements:

- (a) The main inlets and outlets of all ventilation systems shall be capable of being closed from outside the spaces being ventilated. The means of closing shall be easily accessible as well as prominently marked and shall indicate whether the closing appliance is in open or closed position. Where the air intake opening between division of control station (e.g. emergency generator room) and open deck, a fixed gas fire-fighting system is to be fitted.
- (b) Battery room ventilators⁴ are to be fitted with a means of closing and warning notice.
- (c) The structural fire protection including fire resisting divisions, and protection of openings and penetrations in the concerned divisions shall be kept in good order so as to ensure their required performance if a fire occurs.

- (a) For ro/ro cargo ships constructed on or after 1/2/1992 and before 1/7/2002: 1989 SOLAS II-2/53.2.3:
- (b) For cargo ships except tankers constructed on or after 1/7/2002: 2000 SOLAS II-2/5.2.1.1, 2000 SOLAS II-2/9.2.3;
- (c) For tanker ships constructed on or after 1/7/2002: 2000 SOLAS II-2/5.2.1.1, 2000 SOLAS II-2/9.2.4.2; and
- (d) For existing ships: 2000 SOLAS II-2/14.2.1.1.

³ Closing appliances fitted at the inlet or outlet of a ventilation system such as fire flaps, louvers, etc

⁴ Refer to the Unified Interpretation in Regulation II-2/5.2.1.1 of MSC.1/Circ.1434.

Question No.5*

Are the means of control for power ventilation of machinery spaces operable from two grouped positions?

1. Ship Manager, Master and responsible officer shall ensure that:

- (a) control for stopping power ventilation in machinery spaces is operable from two grouped positions, with at least one of the positions located outside of such spaces, if applicable.
- (b) The means for stopping the power ventilation of the machinery spaces are entirely separate from ventilation of other spaces, if applicable.

2. Requirements:

- (a) Means of control shall be provided for stopping ventilating fans. Controls provided for the power ventilation serving machinery spaces shall be grouped so as to be operable from two positions, one of which shall be outside such spaces. The means provided for stopping the power ventilation of the machinery spaces shall be entirely separate from the means provided for stopping ventilation of other spaces.
- (b) Means of control shall be provided for:
 - i. opening and closure of skylights, closure of openings in funnels which normally allow exhaust ventilation, and closure of ventilator dampers;
 - ii. permitting the release of smoke;
 - iii. closing power-operated doors or actuating release mechanism on doors other than power-operated watertight doors;
 - iv. stopping ventilating fans; and
 - v. stopping forced and induced draught fans, oil fuel transfer pumps, oil fuel unit pumps and other similar fuel pumps.

- (a) For ships constructed before 1/7/2002: 1983 SOLAS II-2/11.4; and
- (b) For ships constructed on or after 1/7/2002: 2000 SOLAS II-2/5.2.2.2.

Question No.6*

Can each fire pump deliver at least the two required jets of water?

1. Ship Manager, Master and responsible officer shall ensure that:

- (a) each fire pump is capable of delivering at least two water jets at sufficient pressure, and their capacity has not reduced over time.
- (b) the pressure generated by the fire pumps during operation are verified.

2. Requirements:

- (a) Fire-fighting systems and appliances shall be kept in good working order and readily available for immediate use.
- (b) Each of the required fire pumps (other than any emergency pump required for cargo ships) shall have a capacity not less than 80% of the total required capacity divided by the minimum number of required fire pumps but in any case, not less than 25 m³/h and each such pump shall in any event be capable of delivering at least the two required jets of water. These fire pumps shall be capable of supplying the fire main system under the required conditions. Where more pumps than the minimum of required pumps are installed such additional pumps shall have a capacity of at least 25 m³/h and shall be capable of delivering at least the two jets of water required in SOLAS II-2/10.2.1.5.1.
- (c) The required fire pumps shall be capable of delivering for fire-fighting purposes a quantity of water, at the pressure specified in SOLAS II-2/10.2.1.6.
- (d) With the two pumps simultaneously delivering water through the nozzles specified in SOLAS II-2/10.2.3.3, with the quantity of water as specified in SOLAS II-2/10.2.1.3, through any adjacent hydrants, the following minimum pressures shall be maintained at all hydrants for cargo ships:
 - i. 6,000 gross tonnage and upwards 0.27 N/mm²;
 - ii. less than 6,000 gross tonnage 0.25 N/mm².

- (a) For ships constructed on or after 1/9/1984 and before 1/7/2002: 1981 SOLAS II-2/4;
- (b) For ships constructed on or after 1/7/2002: 2000 SOLAS II-2/10.2.2.4; and
- (c) For existing ship: 2000 SOLAS II-2/14.2.1.2

Question No.7*

Are the means of control provided in a position outside the machinery space for stopping ventilation and oil transfer equipment operational?

1. Ship Manager, Master and responsible officer shall ensure that:

- (a) the means of controls are accessible, unobstructed and ready for use.
- (b) ship's crew are familiar with the procedures for conducting a function test on the remote control mechanisms for stopping ventilation and oil transfer equipment.
- (c) the function test will either stopping the ventilation and oil transfer pumps or tripping their corresponding circuit breakers.

2. Requirements:

- (a) Means of control shall be provided for the opening and closure of skylights, closure of openings in funnels which normally allow exhaust ventilation, closure of ventilator dampers, permitting the release of smoke, closing power-operated doors or actuating release mechanism on watertight doors, stopping ventilating fans. The means shall also include the stopping of forced and induced draught fans, oil fuel transfer pumps, oil fuel unit pumps and other similar fuel pumps.
- (b) Fire-fighting systems and appliances shall be kept in good working order and readily available for immediate use.

- (a) For ships constructed before 1/7/2002: 1983 SOLAS II-2/11.4;
- (b) For ships constructed on or after 1/7/2002: 2000 SOLAS II-2/5.2.2.3; and
- (c) For existing ships: 2000 SOLAS II-2/14.2.1.2.

Question No.8*

Is the room⁵ for the fixed gas fire extinguishing medium used only for this purpose?

1. Ship Manager, Master and responsible officer shall ensure that:

(a) the storage room for fixed gas fire extinguishing medium is solely dedicated for that purposes and no other use is allowed. Sample extraction smoke detection system control panel can be located in the storage room if the system uses CO2 discharge pipe.

2. Requirements:

For all ships⁶ constructed on or after 01/07/2002:

- (a) When the fire-extinguishing medium is stored outside a protected space, it shall be stored in a room which is located behind the forward collision bulkhead and is used for no other purposes.
- (b) The storage room⁷ of fire-extinguishing media of fixed gas fire-extinguishing systems should be used for no other purposes.
- (c) If the CO2 system discharge pipes are used for the sample extraction smoke detection system, the control panel⁸ can be located in the CO2 room provided that an indicating unit is located on the navigation bridge.

3. Convention Reference:

(a) For ships constructed on or after 1/7/2002: 2000 SOLAS II-2/10.4.3.

⁵ For ships constructed before 01/07/2002 the answer to this question should be N/A.

⁶ In case a ship constructed before 01/07/2002 has the system installed, it should comply with the same requirements.

⁷ Refer to Unified interpretations in Regulation 10.4.3 of MSC.1/Circ.1120

⁸ Refer to Unified interpretation in chapter 10 of MSC.1/Circ.1487

Question No.9*

Are the valves used in the fire main line operational?

1. Ship Manager, Master and responsible officer shall ensure that:

- (a) the fire main isolating valve(s) are in good working condition.
- (b) the fire main isolation valve(s) are located at poop front and tank deck for tankers.
- (c) when the fire main line is pressurized, no leakage should be observed from the fire hydrants once the hydrant valves are completely shut.

2. Requirements:

(a) Fire-fighting systems and appliances shall be kept in good working order and readily available for immediate use.

3. Convention reference:

(a) For existing ships: 2000 SOLAS II-2/14.2.1.2.

Question No.10*

Where a fire drill was witnessed, was it found to be satisfactory?

1. Ship Manager, Master and responsible officer shall ensure that:

- (a) fire drill can be conducted satisfactorily.
- (b) the crew should be capable of responding to an emergency situation.
- (c) the crew should be able to efficiently communicate, receive, and execute instructions.
- (d) the master has control over the emergency situation, and all information is directed from one central command location.

2. The requirements:

- (a) The crew shall have the necessary knowledge and skills to handle fire emergency cases, including passenger care where applicable.
- (b) Crew members shall be trained to be familiar with the arrangements of the ship as well as the location and operation of any fire-fighting systems and appliances that they may be called upon to use. Performance of crew members assigned fire-fighting duties shall be periodically evaluated by conducting onboard training and drills to identify areas in need of improvement, to ensure competency in fire-fighting skills is maintained, and to ensure the operational readiness of the fire-fighting organization.
- (c) Fire drills should be planned in such a way that due consideration is given to regular practice in the various emergencies that may occur depending on the type of ships and the cargo. Each fire drill shall include:
 - i. reporting to stations and preparing for the duties described in the muster list required by SOLAS III/8;
 - ii. starting of a fire pump, using at least the two required jets of water to show that the system is in proper working order;
 - iii. checking of fireman's outfit and other personal rescue equipment;
 - iv. checking of relevant communication equipment;
 - v. checking the operation of watertight doors, fire doors, fire dampers and main inlets and outlets of ventilation systems in the drill area; and
 - vi. checking the necessary arrangements for subsequent abandoning of the ship.

3. Convention reference:

(a) For existing ships: 2000 SOLAS II-2/15.1 and 15.2, 2013 SOLAS III/19.3.5.

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