



REPUBLIC OF CYPRUS  
**SHIPPING DEPUTY MINISTRY**

Circular No. 41/2021

1st December 2021

SDM File No. 5.13.002

To all Registered owners, Registered Bareboat Charterers, Managers,  
Representative and Masters of Ships flying the Cyprus Flag

To all Recognised Organisations

**Subject: Periodical inspection and maintenance of:**

- (1) Fixed fire extinguishing systems,**
- (2) Portable and non-portable fire extinguishers,**
- (3) Self-Contained Breathing Apparatus,**
- (4) Emergency Escape Breathing Apparatus,**
- (5) Oxygen bottles for medical use.**

## **1. Introduction**

1.1 The Maritime Safety Committee at its 103<sup>rd</sup> session (5 to 14 May 2021) approved amendments to the Guidelines for the maintenance and inspections of fixed carbon dioxide fire-extinguishing systems MSC.1/Circ.1318 with a view to dissemination as MSC.1/Circ.1318/Rev.1. The amended Guidelines MSC.1/Circ.1318/Rev.1 represent a significant increase in the hydrostatic test regime for CO<sub>2</sub> cylinders and introduce a 5-yearly inspection of control valves<sup>1</sup>.

1.2 This SDM Circular:

- .1 provides the minimum recommended level of maintenance and inspections for fire protection systems and appliances,
- .2 may be used as a basis for the ship's onboard maintenance plan required by SOLAS Regulation II-2/14,
- .3 has been developed in line with the related IMO documents<sup>2</sup>,
- .4 applies to all ships,
- .5 **supersedes SDM Circular No. 7/2002** which is hereby revoked,
- .6 **supersedes SDM Circular No. 14/2013** which is hereby revoked,
- .7 **must be placed on board ships flying the Cyprus Flag.**

## **2. General requirements**

2.1 The guidelines set out in MSC.1/Circ.1432 as amended by MSC.1/Circ.1516 should be applied as these are supplemented by the following paragraphs of this SDM circular.

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<sup>1</sup> the inspection of control valves was already a Cyprus Flag requirement (SDM Circular No. 14/2013).

<sup>2</sup> SOLAS chapter II-2, FSS Code, Assembly resolution A.951(23), IMO MSC.1/Circ.1432 as amended by MSC.1/Circ.1516, MSC.1/Circ.1318-Rev.1, MSC.1/Circ.1312, MSC.1/Circ.1312/Corr.1, MSC/Circ.670, MSC/Circ.798, MSC/Circ.847, MSC/Circ.847/Corr.1, MSC/Circ.849, MSC/Circ.1081, MSC.1/Circ.1555.



2.2 All fixed fire detection and extinguishing systems, including drenching systems, all portable and non-portable fire extinguishers and all other systems and appliances referred to in this SDM circular should, as a rule, be inspected and maintained in accordance with their respective manufacturer's recommendations.

2.3 Inspections and checks which are not explicitly stated as to be done by a third party may be done by a competent person who may be a senior member of the ship's crew, who has successfully completed an appropriate training<sup>3</sup>.

2.4 In case the manufacturer of an equipment or system has specified intervals which are more frequent than those specified below or criteria which are more stringent than those specified below, such intervals or criteria shall apply in lieu of those specified below.

2.5 Inspections and checks should always be carried out in accordance with the recommendations or guidance provided by the manufacturer of the equipment or system.

2.6 In addition, as a rule, third party inspection and maintenance (third party inspection) should be done by a service provider which:

- .1 is authorized or accredited in this respect by the manufacturer of the system or of the appliances; or
- .2 in the absence of such service provider, by a service provider which is accredited in this respect by:
  - (a) the Recognised Organisation which is issuing to the ship, on behalf of this Government, the related statutory certificate; or
  - (b) by one of the other Recognised Organisations which are authorized to issue, on behalf of this Government, the related statutory certificate to ships which are classed with them, provided the accreditation of the service provider by the other Recognised Organisation is acceptable to the Recognised Organisation which is issuing to the ship, on behalf of this Government, the related statutory certificate; or
  - (c) an Administration of an IMO SOLAS Contracting Government and accepted by the Recognised Organisation which is issuing to the ship on behalf of this Government, the related statutory certificate.

2.7 Third party inspection by a service provider which does not fall under any one of the categories listed above could be done, provided that the prior<sup>4</sup> case by case authorization of the Shipping Deputy Ministry has been obtained.

2.8 Furthermore, the following general rules apply:

- .1 the system or an individual part or unit of the system and appliance should be recharged when the loss of contents of the system as a whole or of an individual part or unit of the system or of an appliance exceeds 10 per cent; and
- .2 in all circumstances the attending surveyor may require, if he/she deems it fit, the thorough inspection, hydrostatic testing or the recharging of a system or of an individual part or unit of the system or of an appliance.

### **3. Specific requirements**

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<sup>3</sup> at least an advanced fire-fighting training course – STCW A-VI/3.

<sup>4</sup> an application form (dispensation) should be submitted as per the SDM Circular No. 15/2015.

3.1 In the absence of related recommendations by the manufacturer of the system or of the appliance this should undergo third party inspection and/or testing as specified below.

3.2 The time interval specified below should be counted from the date of the completion of the construction of a system or of an appliance or from the date of the initial hydrostatic testing stamped on the cylinder, as the case may be or in the absence of such date from the date of completion of the initial survey of the ship upon construction and thereafter from the date of completion of the previous third party inspection or testing.

3.3 The third party inspections should preferably be carried out:

- .1 within a window of “+/- three months” from the anniversary of the Cargo Ship Safety Equipment Certificate or of the Passenger Ship Safety Certificate, as the case may be, and
- .2 prior the attendance onboard of the Recognised Organisation<sup>5</sup> for carrying out the related statutory survey and the subsequently endorsement of the associated statutory certificate.

3.4 The “+/- three months” window does not apply to the anniversary date of the third party inspection of the system or of the appliance.

3.5 When it is practically feasible, the Ship’s Managers are urged to consider arranging third party inspections / surveys of their ships as early as possible in the window of “+/- three months”.

3.6 The Shipping Deputy Ministry may, upon request<sup>6</sup> and in exceptional cases, extend<sup>7</sup> the time interval specified below for limited periods from the anniversary of the previous third party inspection.

#### **4. Fixed fire extinguishing systems**

4.1 Fixed fire extinguishing systems are subject to third party inspection at interval not exceeding 2 years.

#### **5. Fixed gas fire fighting systems**

5.1 The quantity of gas fire extinguishing medium should be checked at intervals not exceeding 2 years.

5.2 For ships which are fitted with a fixed carbon dioxide fire extinguishing system, in case the loss of content of the system as a whole or of an individual part or unit of the system exceeds 10 per cent, the system or the individual part or unit of the system should be recharged.

5.3 For ships which are fitted with a fixed gas fire extinguishing system other than carbon dioxide, in case the loss of content of the system as a whole or of an individual part or unit of the system exceeds 5 per cent, the system or the individual part or unit of the system should be recharged.

5.4 The chemical composition of foam medium used in fixed fire extinguishing systems should be tested by a third party no later than three years after the date it was installed on board

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<sup>5</sup> which is issuing to the ship, on behalf of this Government, the related statutory certificate.

<sup>6</sup> an application form (extension) should be submitted as per the SDM Circular No. 15/2015,

<sup>7</sup> for the minimum necessary period not exceeding three months extension is possible, for justified and documented cases only.

and, thereafter, at yearly intervals. For the various types of foam please referred to the related provisions of MSC.1/Circ.1432.

5.5 A hydrostatic test and internal examination of 10 per cent of cylinders containing the system's extinguishing agent and of the pilot cylinders should be carried out by a third party at intervals not exceeding 10 years<sup>8</sup>. If one or more cylinders fail, a total of 50 per cent of the onboard cylinders should be tested. If further cylinders fail, all cylinders should be tested. Before the 20-year anniversary<sup>9</sup> and every 10-year anniversary thereafter, all cylinders should be subjected to a hydrostatic test.

5.6 The control valves of fixed fire extinguishing systems should be internally inspected by a third party at interval not exceeding 5 years.

5.7 The flexible hoses should be internally inspected and hydrostatically tested by a third party or, alternatively, should be replaced, at intervals not exceeding every 10 years.

## **6. Portable and non-portable fire extinguishers**

6.1 Portable and non-portable fire extinguishers are subject to third party inspection at intervals not exceeding 2 years.

6.2 The quantity of fire extinguishing medium and the quantity of propellant medium should be checked at yearly intervals. In case the loss of contents exceeds 10 per cent the extinguisher should be recharged.

6.3 The flexible hoses, applicators and control valves, including those of the propellant medium, should be visually inspected at yearly intervals and should be replaced when necessary.

6.4 All portable and non-portable fire extinguishers should be internally inspected and hydrostatically tested by a third party at interval not exceeding 10 years.

## **7. Self-contained breathing apparatus**

7.1 The self-contained breathing apparatus are subject to third party inspection at intervals not exceeding 2 years, unless a statutory requirement stipulates otherwise. For example, paragraph 14.2.6 of the IBC Code states that *"The breathing apparatus should be inspected at least once a month by a responsible officer, and the inspection recorded in the ship's log-book. The equipment should be inspected and tested by an expert at least once a year."*

7.2 The mask, flexible hoses, breathing regulator, flow meters and control valves should be inspected and the quantity and quality of air of self-contained breathing apparatus should be checked:

- .1 at yearly intervals; and
- .2 by a third party at intervals not exceeding 2 years.

7.3 In case the loss of content of the system as a whole or of an individual part or unit of the

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<sup>8</sup> in cases where cylinders for fixed-gas fire-fighting systems have been date stamped prior to delivery of a vessel, the first 10-year hydrostatic test may be harmonized (on case by case basis) with drydocking at the Second Special Survey provided that the initial date stamp (month/year) on the cylinder does not exceed 12 months before the vessel delivery date. An application form (extension) should be submitted as per the SDM Circular No. 15/2015 on case by case basis.

<sup>9</sup> on 1 January 2022, ships having cylinders of 20 years of age or older having only 20% of the cylinders hydrostatically tested, shall hydrostatically test the remaining 80% of the cylinders at the vessel's next intermediate or renewal survey whichever comes first. An application form (extension) should be submitted as per the SDM Circular No. 15/2015 on case by case basis.

system exceeds 10 per cent, the system or the individual part or unit of the system should be recharged.

7.4 The quality of air of shipborne air charging system should be checked at yearly intervals and by a third party at intervals not exceeding 2 years.

7.5 The air bottles of the self-contained breathing apparatus, including those provided as spares and any pressure vessels of the shipborne air charging system should be internally inspected and hydrostatically tested by a third party at interval not exceeding 5 years.

7.6 For every self-contained breathing apparatus, 200 per cent spare charged air bottles should be provided on board, unless there are means on board for charging the air bottles or unless the type of the ship requires more spare charged air bottles to be carried on board.

7.7 An onboard means of recharging breathing apparatus air bottles used during drills shall be provided or a suitable number of spare air bottles shall be carried onboard to replace those air bottles used during drills. The Shipping Deputy Ministry does not prescribe any minimum number and thus the shipboard safety management system (SMS) must include provisions that sufficient spare air bottles are available onboard<sup>10</sup> corresponding to the number of breathing apparatus being used during drills.

## **8. Emergency Escape Breathing Apparatus (EEBD)**

8.1 Both MSC/Circ.849 and MSC/Circ.1081 should be followed.

8.2 Irrespective of number of EEBD in place, at least one (1) additional EEBD should be available onboard solely for training purposes<sup>11</sup> and be clearly marked accordingly.

8.3 The maintenance and inspections requirements of section 7 apply also to EEBD.

## **9. Oxygen bottles for medical use**

9.1 The mask, flexible hoses, breathing regulator, flow meters and control valves should be inspected and the quantity of medical oxygen should be checked:

- .1 at yearly intervals; and
- .2 by a third party at intervals not exceeding 2 years.

9.2 In case the loss of contents of the system as a whole or of an individual part or unit of the system exceeds 10 per cent, the system or the individual part or unit of the system should be recharged.

9.3 Medical oxygen has a limited shelf life of 3 years and should be replaced before the expiry date.

9.4 The cylinders containing medical oxygen should to be internally inspected and hydrostatically tested by a third party at intervals not exceeding 5 years.

9.5 For ships which are required to comply with the requirements of Column A or B of Appendix 14 of the Medical First Aid Guide (MFAG) the following should be available in the ship's hospital:

- .1 a quantity of medical oxygen not less than 40 L/200 bar, in non-portable medical

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<sup>10</sup> For the suitable number of spare air bottles to be provided in connection with drills refer to the MSC.1/Circ.1555, Unified interpretation of SOLAS chapter II-2.

<sup>11</sup> should be clearly marked as "training".

oxygen cylinder assembled for direct use with 1 flow meter unit with two ports for supplying oxygen for 2 persons at the same time. If more than 1 non-portable cylinder is used there must be 2 flow meter units for supplying oxygen to 2 persons at the same time; and

- .2 one complete portable set with a quantity of medical oxygen not less than 2 L/200 bar ready for use and a spare cylinder with a quantity of medical oxygen not less than 2 L/200 bar.
- .3 The single 40 L/200 bar Medical Oxygen Cylinder may be substituted with either two (2) 20 L/200 bar cylinders or four (4) 10 L/200 bar cylinders, provided the equipment/flowmeter units are arranged to supply oxygen to two (2) persons simultaneously.

9.6 For ships which are not required to comply with the requirements of the MFAG a quantity of medical oxygen not less than 2 L/200 bar in a portable cylinder and a spare quantity medical oxygen not less than 2 L/200 bar in a portable cylinder.

## **10. Implementation**

10.1 The provisions of this SDM Circular become applicable for each ship on the first safety equipment related survey on or after 01 January 2022.



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cc: Maritime Offices of the Shipping Deputy Ministry abroad  
Inspectors of Cyprus ships  
Cyprus Shipping Chamber  
Cyprus Union of Shipowners  
Cyprus Bar Association