



MPA  
SINGAPORE

**MARITIME AND PORT AUTHORITY OF SINGAPORE**  
**SHIPPING CIRCULAR**  
**NO. 13 OF 2021**

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29 November 2021

**Applicable to:** Shipowners, shipmanagers, operators, agents, surveyors and masters of Singapore registered ships

**IMPLEMENTATION OF GUIDANCE RELATED TO THE MAINTENANCE, TESTING AND INSPECTION OF FIRE PROTECTION SYSTEMS AND FIRE FIGHTING SYSTEMS AND APPLIANCES**

1. This circular informs the shipping community of the revised requirements on maintenance, testing and inspection of fire protection systems, and fire fighting systems and appliances which supersedes Shipping Circular No.19 of 2013.
2. Regulation II-2/14.2.2.1 of the International Convention for the Safety of Life at Sea 74 (SOLAS), as amended, requires that the maintenance, testing and inspections of fire fighting systems and appliances onboard ships shall be carried out based on the guidelines 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. The IMO has recently revised several guidelines which provides the minimum recommended level of maintenance and inspections for fire protection systems and appliances. Ship owners, ship masters, ship's officers and crew, and all other parties concerned shall apply the requirements mentioned in the guidelines on Singapore registered ships for implementing the fire protection systems and appliances maintenance plan onboard, in compliance to SOLAS II-2/14.2.2.2 and II-2/14.2.2.3. These requirements shall not override the manufacturers more stringent maintenance plan, if so stipulated.
4. The IMO guidelines, as revised are as follows:
  - a. MSC.1/Circ.1318/Rev.1 on Guidelines for the Maintenance and Inspections of Fixed Carbon Dioxide Fire Extinguishing Systems
    - i. The revised guidelines clarify the hydrostatic testing regime for high-pressure CO<sub>2</sub> cylinders and align the relevant requirements in the guidelines with those in the revised guidelines for the maintenance and

inspection of fire protection systems and appliances (MSC.1/Circ.1432) and requires all high-pressure CO<sub>2</sub> cylinders to be subjected to a hydrostatic test before the 20<sup>th</sup> year anniversary and every 10<sup>th</sup> year anniversary thereafter. From **1 January 2022** onwards, Singapore registered ships are to carry out the hydrostatic test of all its high-pressure CO<sub>2</sub> cylinders at or before their 20<sup>th</sup> and 30<sup>th</sup> year anniversary, and every 10<sup>th</sup> year anniversary thereafter.

- ii. For ships that had completed the maintenance requirements during its 20<sup>th</sup> anniversary in accordance with Shipping Circular No.19 of 2013, i.e. another 10% of its CO<sub>2</sub> cylinders have been subjected to an internal inspection and hydrostatic test during its dry docking prior to 1 January 2022, the administration will take into consideration the need for a pragmatic implementation and that hydrostatic test of these CO<sub>2</sub> cylinders would usually be carried out during the ship's dry-docking. These ships are to carry out the hydrostatic testing of all its CO<sub>2</sub> cylinders at its 30<sup>th</sup> anniversary and every 10<sup>th</sup> anniversary thereafter. For ships that had completed the maintenance requirements at its 30<sup>th</sup> year anniversary in accordance with Shipping Circular No.19 of 2013 prior to 1 January 2022, they are to carry out the hydrostatic testing of all its CO<sub>2</sub> cylinders by their next scheduled dry docking, but not later than 1 January 2027.
  - iii. In addition from 1 January 2022 onwards, whenever the CO<sub>2</sub> cylinders are removed for hydrostatic test, they shall be replaced such that the quantity of fire-extinguishing medium continues to satisfy the requirements of 2.2.1 of chapter 5 of the FSS Code, subject to SOLAS regulation II-2/14.2. The exception applies if these CO<sub>2</sub> cylinders are removed for hydrostatic test during the ship's dry docking.
- b. MSC.1/Circ.1516 on Amendments to the Revised guidelines for the maintenance and inspection of fire protection systems and appliances (MSC.1/Circ.1432)
- i. The revised guidelines amend the testing of automatic sprinkler systems and provide the minimum level of maintenance and inspections for fire protection systems and appliances. Reference should be made to MSC.1/Circ.1318/Rev.1 on maintenance and inspection of fixed carbon dioxide fire extinguishing systems and Resolution A.951(23) on marine portable fire extinguishers which MSC.1/Circ.1516 does not address. The revised maintenance and inspections requirements shall be implemented as soon as possible, but not later than 1 January 2022.
- c. Resolution A.951(23) on Improved Guidelines for Marine Portable Fire Extinguishers
- i. The guidelines remain unchanged and have been developed to supplement the relevant requirements for marine portable fire extinguishers of SOLAS and the International Code for Fire Safety Systems (FSS Code). The maintenance and inspections requirements

have been implemented on Singapore ships since 1 December 2013, as promulgated in Shipping Circular No.19 of 2013.

5. The onboard maintenance plan should also clearly indicate the inspections and maintenance task that may be performed by competent crew members and the tasks that are to be completed by persons specially trained in the maintenance of such systems. Any aspect of the inspection and maintenance of the systems assessed by the Company to be beyond the competence of the ship's personnel, should be carried out by a competent shore maintenance specialist.
6. Queries relating to this circular should be directed to [shipping@mpa.gov.sg](mailto:shipping@mpa.gov.sg).

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