THE GOVERNMENT
OF THE GRAND DUCHY OF LUXEMBOURG
Ministry of the Economy

Maritime Administration

Luxembourg, 05 April 2022

Circular CAM 01/2022

O/Ref. : NW/114352

Subject: **Revision of MSC/Circ. 1318 Rev 1: Guidelines for the Maintenance and Inspection of fixed Carbon Dioxide Fire-Extinguishing Systems**

To : All Accredited Shipping Managers, ship owners, ship operators, RO's, Designated Persons Ashore of Luxembourg flagged ships and Flag State Inspectors.

Reference is made to:

- SOLAS Chapter II-2, as amended
- MSC.1/Circ.1432, adopted 31 May 2012 as amended
- MSC.1/Circ1516 adopted 08 June 2015
- MSC.1/Circ.1318, Rev.1 adopted 25 May 2021
- International Code for Fire Safety Systems (FSS Code), as amended

The goal of the revision is to clarify the hydrostatic testing regime for high-pressure CO2 cylinders and to align the relevant requirements in the Guidelines for the maintenance and inspections of fixed carbon dioxide fire-extinguishing systems (MSC.1/Circ.1318, 11 June 2009) with those in the Revised guidelines for the maintenance and inspection of fire protection systems and appliances (MSC.1/Circ.1432, 31 May 2012).
This Circular (MSC.1/Circ.1318 Rev 1, 25 May 2021) supersedes MSC.1/Circ 1318.

Revisions as per MSC.1/Circ.1318 Rev 1, 25 May 2021:

§ 6 Minimum recommended maintenance

6.1 At least biennially (intervals of 2 years ± 3 months) in passenger ships or at each intermediate, periodical or renewal survey in cargo ships, the following maintenance should be carried out:

.1 all high-pressure cylinders and pilot cylinders should be weighed or have their contents verified by other reliable means to confirm that the available charge in each is above 90% of the nominal charge. Cylinders containing less than 90% of the nominal charge should be refilled. The liquid level of low pressure storage tanks should be checked to verify that the required amount of carbon dioxide to protect the largest hazard is available;

.2: the hydrostatic test date of all storage containers should be checked. High-pressure cylinders should be subjected to periodical tests at intervals not exceeding 10 years. At the 10-year inspection, at least 10% of the total number provided should be subjected to an internal inspection and hydrostatic test*. If one or more cylinders fail, a total of 50% of the onboard cylinders should be tested. If further cylinders fail, all cylinders should be tested. Before the 20-year anniversary and every 10-year anniversary thereafter, all cylinders should be subjected to a hydrostatic test. Flexible hoses should

be replaced at the intervals recommended by the manufacturer and not exceeding every 10 years. When cylinders are removed for testing, the cylinders should 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; and

.3 the discharge piping and nozzles should be tested to verify that they are not blocked. The test should be performed by isolating the discharge piping from the system and flowing dry air or nitrogen from test cylinders or suitable means through the piping.

* Refer to standard ISO 18119:2018 – Gas cylinders – Seamless steel and seamless aluminium-alloy gas cylinders and tubes – Periodic inspection and testing.

Recommendations:

For New and Existing ships with high-pressure cylinders less than 10 Year of ages:

At the 10-year inspection, at least 10% of the total number provided should be subjected to an internal inspection and hydrostatic test. If one or more cylinders fail, a total of 50% of the onboard cylinders should be tested. If further cylinders fail, all cylinders should be tested. Before the 20-year anniversary and every 10-year anniversary thereafter, 100% of cylinders should be subjected to a hydrostatic test.

Existing ships with cylinders greater than 10 years of age, but less than 20 years of age that are equipped with no cylinders that have been hydrostatically tested:

10% of the total number provided at the next annual survey. If one or more cylinders fail, a total of 50% of the onboard cylinders should be tested. If further cylinders fail, all cylinders should be tested.

100% of the cylinders are to be subject to a hydrostatic test at the intermediate or renewal survey coinciding with the cylinders reaching 20 years of age and every 10-year anniversary.

For Existing ships with high-pressure cylinders of age 20 or more years:

At the previous 10-year anniversary, at least 10% of high-pressure cylinders have been subject to an internal inspection and hydrostatic test. All cylinders, which were not subject to a hydrostatic test during the previous 10-year period, are to be hydrostatically tested latest at the next intermediate, renewal or scheduled drydock survey, whichever comes first.

100% of the cylinders are to be subject to a hydrostatic test at the intermediate or renewal survey every 10-year anniversary thereafter.

Adequate dissemination of this information within your company and to the Masters of Luxembourg flagged vessels should be ensured.

COMMISSARIAT AUX AFFAIRES MARITIMES
G.-D. DE LUXEMBOURG

(s) Robert BIWER
Government Commissioner
for maritime affairs