



# TUVALU SHIP REGISTRY

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## MARINE CIRCULAR

### MC-17/2011/1

4/2018

**FOR:** Ship Owners, Ship Managers, Ship Operators, Ship Masters, Ship Officers, Flag State Inspectors

**SUBJECT: SYSTEMS USING HALONS AND OTHER OZONE DEPLETING SUBSTANCES**

#### DEFINITIONS:

The following abbreviations stand for:

- "CFC" – Chlorofluorocarbons
- "EC" – European Commission
- "EU" – European Union
- "HALON" – Halogenated Hydrocarbons
- "IMO" – International Maritime Organization
- "SSE" – IMO Sub-Committee on Ship Systems and Equipment
- "MARPOL" – International Convention for the Prevention of Pollution from Ships 1973, as modified by the Protocol of 1978
- "RO" – Recognized Organization as defined by IMO Resolution A.789(19).
- "SOLAS" – International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended
- "UN" – United Nations

The term "Administration" shall mean Tuvalu Ship Registry.

#### PURPOSE:

This Marine Circular serves to provide information on the restrictions regarding the use of ozone depleting substances including the phasing out of the production and consumption of Halon 1211, 1301 and 2402 that started from 1 January 2000, and the effects this is having on the available supply of Halons still being used as a fire extinguishing media.

#### REFERENCES:

- (a) European Regulation (CE) No. 2037/2000
- (b) SSE.1/Circ.2/Rev.1, dated 23 March 2018
- (c) IMO Assembly Resolution A.719(17)
- (d) MARPOL Annex VI
- (e) SOLAS II-2/10
- (f) Tuvalu Marine Circular MC-7/2011/1

#### APPLICATION:

This Circular applies to all vessels:

- 1) Built before 1 October 1994 – where Halons are still equipped as a fire extinguishing media as permitted by SOLAS II-2/10; and

- 2) Built before 6 November 1992 – where CFCs are still used in fixed refrigeration and air conditioning systems as permitted by IMO Assembly Resolution A.719(17).

## **CONTENTS:**

### **1. Montreal Protocol, 1987**

- 1.1. The UN's Environment Program through its Montreal Protocol on Substances that Deplete the Ozone Layer, 1987, which entered into force in January 1989; stipulates that owing to the ozone-depleting potential of chlorofluorocarbons and Halons, the production and consumption of chlorofluorocarbons and Halon, including CFC-11, CFC 12, CFC-113, CFC-114, CFC-115, Halon-1211, 1301 and 2402 should be kept at their 1986 levels and phased out by 1 January 2000.
- 1.2. Though the International Maritime Organization (IMO) has not defined any target date for the phasing out of Halons, it has recommended and encouraged all sectors of the maritime industry to limit the use of Halons and CFCs aboard ships, and by amendment of SOLAS 1974 via MSC Resolution 27(61) to use alternative fire extinguishing systems and media on new buildings after 1 October 1994, prohibit any new installations on existing vessels, and prohibit the release of Halons into the atmosphere when testing existing systems. IMO Assembly Resolution A.719(17) prohibits the use of CFCs in any new installation on vessels after 6 November 1992.
- 1.3. In addition, in accordance with Article 11.1 of the European Regulation (CE) No. 2037/2000, exports from the Community of Halons (1301, 1211 or 2402) or products and equipment containing those substances or whose continuing function relies on supply of those substances are prohibited since 31 December 2003.

### **2. Replacement of Systems**

- 2.1. This Administration has not established a phase out date for existing Halon installations and systems using CFCs equipped on Tuvalu flagged vessels. It is the Administration's interpretation of the IMO rules that only new installations of fire extinguishing systems using Halon 1211, 1301 and 2402 and CFCs are prohibited in all new buildings and existing vessels from 1 October 1994 onwards.
- 2.2. This Administration recognizes that there are existing ships which have Halon installed for fire extinguishing purposes and permit their continued use on condition that they are considered fit for their intended purpose and as long as the systems remain serviceable.
- 2.3. The EC considers that the supplying of a non-EU flagged ship in an EU-port with Halon is an illegal export. Therefore, please be aware that in case Halon replenishment is needed, refilling of such systems with other than the original Halon put ashore and returned for survey purposes on non-EU flagged ships will not be possible and that the vessel will be detained until a new fixed fire fighting system is installed on board. Based on this, vessels calling regularly at EU ports would be well advised to replace the system as soon as practicable.

### **3. Inspection & Testing of Systems**

- 3.1. Halon systems are to be maintained as stated in Tuvalu Marine Circular MC-7/2011/1.
- 3.2. Due to the phasing out of the production and consumption of Halon 1211, 1301 and 2402 that started from 1 January 2000, there has been increasing difficulty to locate servicing facilities and suppliers for the testing and maintenance of existing fixed Halon fire suppression systems and components.

- 3.3. It is based on the logistical difficulties associated with the situation mentioned in section 3.2 above that the Administration will consider a relaxed maintenance schedule with regard to the hydrostatic testing of the Halon storage cylinders (refer to section 5.3.3 of Tuvalu Marine Circular MC-7/2011/1 which has been reproduced below in section 3.4).
- 3.4. Under the relaxed maintenance schedule, the hydrostatic testing interval of 20 years for the Halon storage cylinders may be extended by 5 years provided the following conditions are met:
  - 3.4.1. A cylinder has not been discharged during its service history;
  - 3.4.2. Cylinder contents are verified by weighing or isotropic measurement;
  - 3.4.3. Cylinder pressure/levels are verified to be acceptable;
  - 3.4.4. A thorough visual inspection of cylinders reveal no potential defects; and
  - 3.4.5. Cylinders are gauged to the extent considered necessary, and the wall thickness readings kept on board for future comparative reference.
- 3.5. In addition, a thorough examination shall be made of all accessible component parts of the Halon system, including control valves and connections, to verify satisfactory condition and freedom from leakage; and selected control valves shall be opened out for internal examination to the extent necessary.
- 3.6. Any suspect cylinders that do not meet the provisions stated above must be tested, or taken out of service.
- 3.7. The cylinder inspection and thickness gauging shall than be repeated annually as part of the annual servicing requirement of the system, until the end of the five 5 year period of extension.
- 3.8. Consideration for the application of the relaxed hydrostatic testing requirements for the fixed Halon system storage cylinders will be given on a case-by-case basis, and must be approved in writing by this Administration.

#### **4. Emissions**

- 4.1. MARPOL Annex VI Reg 3 prohibits any deliberate emissions of ozone depleting substances.
- 4.2. Deliberate emissions include emissions occurring in the course of maintaining, servicing, repairing, or disposing of systems or equipment. Deliberate emissions do not include minimal releases associated with the recapture or recycling of an ozone depleting substance.

#### **5. Replenishment Sources**

- 5.1. The 1985 Vienna Convention and the 1987 Montreal Protocol provide for the establishment of Halon Banks by member States to make recycled Halon commercially available for shipboard fire fighting equipment. However, some port States that are parties to the Convention and Protocol will not allow their Halon Banks to supply Halons to ships in the registry of other countries that are not party to the Montreal Protocol. Please also note the EC's position in section 2.3 above.
- 5.2. Tuvalu is a party to the Convention and Protocol. Therefore, the Administration should be notified immediately if any shipowner/operator experiences difficulties in obtaining replenishment Halon supplies.

- 5.3. In the event of the discharge or loss of pressure of the Halon Gas cylinders, this Administration accepts the replenishment of the used cylinders which remain in satisfactory condition. However, if Halon Gas is not readily available, the ship will be required to ensure that the affected space has adequate fire fighting capability (via temporary arrangement) prior to departure from port. Approval for the temporary arrangement shall be obtained from RO and this Administration taking into account the relevant guidance in IMO MSC Circular.775.

## **6. Relevant Appendix**

**Appendix I:** SSE.1/Circ.2/Rev.1, dated 23 March 2018, Halon Banking and Reception Facilities – is available for download together with this circular.

Yours sincerely,

Deputy Registrar  
Tuvalu Ship Registry