



**PANAMA MARITIME AUTHORITY
(AUTORIDAD MARÍTIMA DE PANAMÁ)
GENERAL DIRECTORATE OF MERCHANT MARINE
(DIRECCIÓN GENERAL DE MARINA MERCANTE)
DEPARTMENT OF CONTROL AND COMPLIANCE
(DEPARTAMENTO DE CONTROL Y CUMPLIMIENTO)**

F-265
(DCCM)
V.00



MERCHANT MARINE CIRCULAR MMC-376

To: Shipowners/Operators, Masters, Legal Representatives and Recognized Organizations.

Subject: Phase out and prohibition on installation of equipment containing ODS, including hydrochlorofluorocarbons (HCFCs).

Reference: MARPOL Annex VI regulation 12 – Ozone Depleting Substances.

1. The purpose of this Merchant Marine Circular is to advise Ship owners/ operators and masters on the Phase out and prohibition on installation of equipment containing ozone depleting Substances (ODS), including hydrochlorofluorocarbons (HCFCs).
2. Included within the definition of ODS are the chlorofluorocarbons (CFC) and halons used respectively in older refrigeration and fire-fighting systems and portable equipment. ODS were also used as the blowing agent in some insulation foams. Hydrochlorofluorocarbons (HCFC) were introduced as an intermediate replacement for CFCs but are themselves still classed as ODS. As part of a world-wide movement, the production and use of all these materials is being phased out under the provisions of the Montreal Protocol.
3. The regulation 12 of MARPOL Annex VI prohibits installation of equipment containing ODS, including hydrochlorofluorocarbons (HCFCs) on ships constructed on or after 1st January 2020. And as it is indicated on the requirements of international agreement on substances that deplete the ozone Layer, called the Montreal Protocol 1987. The Montreal Protocol was agreed to stop the production and import of ozone depleting substances (ODS) and reduce their concentration in the atmosphere to help protect the earth's ozone layer.
4. The controls in this regulation do not apply to permanently sealed equipment without charging connections or removable components; this typically covers items such as small, domestic type, refrigerators, air conditioners and water coolers.
5. The Montreal Protocol, with its amendments has set phase out timetable for all the major ozone depleting substances, including chlorofluorocarbons (CFCs), halons, HCFCs and other ODS.
6. New installations containing HCFCs is prohibited on ships constructed on or after 1st January 2020. However systems and equipment containing HCFCs on existing ships are permitted to continue in service and may be replenished as necessary with prohibition of the deliberate discharge of ODS to the atmosphere. Therefore phasing out of HCFCs will affect existing systems and equipment servicing and maintenance after 1st January 2020.

7. In order to avoid future troubles with systems and equipment containing HCFCs, owners and operators of the ships are advised to conduct a suitable evaluation of existing systems and equipment with possible alternative solutions may be carried out in order to determine carefully about continuation with the existing systems and equipment or appropriate replacement/modification using non-ODS substances.
8. The ship owners and operators who would like to continue with the existing systems and equipment must ensure that:
 - 8.1. The records related to usage, servicing, maintenance, HCFCs consumption will be kept on board strictly in accordance with instruction given in the Official Panama Oil-record book and Emissions (Part III "Ozone-depleting substances on board"). Entries in Part III of this Official Book shall be recorded in terms of mass (kg) of substance and shall be completed without delay on each occasion,
 - 8.2. The replenishment of ship's refrigeration system due to natural consumption will be done from stock prepared before 1st January 2020.
 - 8.3. The ship's refrigeration system is in good working condition with minimum natural consumption of refrigerant, maintenance of refrigeration system carried out in accordance with manufacturers prescriptions without deliberate discharge of refrigerant to atmosphere,
 - 8.4. At the time of servicing or decommissioning the systems or equipment containing HCFCs, the HCFC is duly collected in a controlled manner and, if not to be reused onboard, be landed to appropriate reception facilities for banking or destruction. Any redundant equipment or material containing HCFC is landed ashore for appropriate decommissioning or disposal. The latter also applies during ship is dismantled at the end of its service life.
9. Considering that ships having onboard installations of existing systems and equipment containing HCFCs are likely to have detailed inspections by the port state control (PSC) authorities. It is expected that records related to usage, servicing, maintenance, HCFCs consumption will be verified strictly towards compliance.

August, 2019

Inquiries concerning the subject of this Circular or any other request should be directed to:

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