CCS 通 函

Circular

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发：本社船舶验船师，马绍尔群岛船旗船东和管理公司
To: CCS Ship Surveyors, Marshall Islands Ship Owners and Operators

关于马绍尔群岛旗船舶卤代烷系统维护保养新的规定

Maintenance and Inspection of Halon System

MN-2-011-11 Rev. 10/10

马绍尔群岛海事主管机关发布海事通告，对 1994 年 10 月 1 日之前建造的马绍尔群岛旗船舶卤代烷系统的维护和检查做出新的规定（详见附件 1/MN-2-011-11）。本社验船师在检验过程中应核查船上的执行是否满足主管机关的要求。

The maritime Administration of Marshall Islands provides requirements for the proper maintenance and Inspection to halons as a fire extinguishing media on vessels built before 1 October 1994 (see Annex 1). CCS Surveyors are responsible for verifying the implementation on board when carrying out appropriate surveys.

卤代烷系统应按照 MN-2-011-14 指导予以维护（详见附件 2）。

Halon systems are to be maintained as per the guidelines set forth in Marine Notice 2-011-14 (see Annex 2), Maintenance and Inspection of Fire-Protection Systems and Appliances.

逐步结束生产和使用卤代烷 1211、1301 和 2402 等物质限制使用臭氧消耗物质的规定早在 2000 年 1 月 1 日即开始执行，此后为试验和维护现有的固定式卤代烷灭火系统及其部件而寻找检修机构和供应商来越来越困难。基于检修维护问题产生的实际困难，主管机关就卤代烷存储钢瓶的液压试验将考虑弹性的维修计划（原文详见附件 2）。

Due to the phasing out of the production and consumption of Halon 1211, 1301 and 2402 that began on 1 January 2000, there has been increasing difficulty with regard to locating servicing facilities and suppliers for the testing and maintenance of existing fixed Halon fire suppression systems and components. It is based on the logistical difficulties

若本通函在实施过程中存有疑问，敬请与我社总部营运入级处取得联系:
Tel: +86-10-58112809 / Fax: +86-10-58112807 / e-mail: cd@ccs.org.cn

associated with this situation that the Administration will consider a relaxed maintenance schedule with regard to the hydrostatic testing of the Halon storage cylinders (see Annex 2).

在弹性的维修计划中，卤代烷存储钢瓶 20 年间隔期的液压试验可以展期 5 年，只要满足下列条件：

Under the relaxed maintenance schedule, the hydrostatic testing interval of 20 years for the Halon storage cylinders may be extended by five (5) years provided the following conditions are met:

1. 钢瓶在其服役期未曾被释放过
   A cylinder has not been discharged during its service history;
2. 经称重或同位素测量验证了钢瓶含量
   Cylinder contents are verified by weighing or isotropic measurement;
3. 钢瓶压力/液位得到验证并予以接受
   Cylinder pressure/levels are verified to be acceptable;
4. 进行了全面的目视检查，未发现潜在的缺陷
   A thorough visual inspection of cylinders reveal no potential defects; and
5. 对钢瓶做尽可能全面的测厚，其壁厚数据应保存在船上供将来比较参考之用。
   Cylinders are gauged to the extent considered necessary, and the wall thickness readings kept on board for future comparative reference.

另外，全面检查卤代烷系统所有可触及的部件，包括控制阀及其连接，以验证满意的状况并没有泄漏，所选择的控制阀应予解体至必要的程度以做内部检查。

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.

对任何怀疑不满足上述规定的钢瓶必须进行试验或检修。

Any suspect cylinders that do not meet the provisions stated above must be tested, or taken out of service.

作为系统年度检修要求的组成部分，钢瓶检查和厚度测量至少应每年进行一次，直至 5 年展期结束。

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.

申请固定卤代烷系统存储钢瓶的弹性液压试验要求将基于一事一议的原则予以考虑，并且必须获得主管机关的书面批准。

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 the Administration.

另请注意，欧盟委员会认为在欧盟港口向非欧盟旗船舶供给卤代烷属于违法出口。不论何种原因一旦卤代烷被释放，在那里不可能允许给非欧盟旗船上的灭火系统重新充装卤代烷，而且该船舶将被滞留直至新的灭火系统被安装上船。为此，经常造访欧洲港口的船舶最好尽可能更换卤代烷系统。

In addition, please be aware that the European Commission considers that supply of a non-EU flagged ship in an EU-port with halon is considered as illegal export. Therefore, in case halon is discharged for whatever reason, refilling of such systems on non-EU flagged ships with halon will not be possible and that vessel will be detained until a new fixed fire fighting system is installed on board. Based on this, vessels calling regularly at European ports would be well advised to replace the system as soon as practicable.

本通函自发布之日起生效实施。

The circular becomes effective immediately upon issuing date.

请本社各检验机构将本通函转发辖区内的马绍尔群岛旗船舶船东和管理公司。

CCS Survey Branches are requested to forward this circular to the Marshall Islands ship Owners and Operators.

特此通知。

Appendix

1. MI Marine Notice 2-011-11
   Systems Using Halogenated Hydrocarbons (Halons) and Other Ozone Depleting Substances
2. MI Marine Notice 2-011-14
   Maintenance and Inspection of Fire-Protection Systems and Appliances

REPUBLIC OF THE MARSHALL ISLANDS

OFFICE OF THE MARITIME ADMINISTRATOR

Marine Notice

No. 2-011-11

Rev. 10/10

TO: **ALL SHIPOWNERS, OPERATORS, MASTERS AND OFFICERS OF MERCHANT SHIPS, AND RECOGNIZED ORGANIZATIONS**

SUBJECT: **Systems Using Halogenated Hydrocarbons (Halons) and Other Ozone Depleting Substances.**

References:
- **(a) SOLAS Chapter II-2 Regulation 10**
- **(b) IMO Assembly Resolution A.719(17)**
- **(c) MARPOL 73/78 Annex VI**
- **(d) Marine Notice 2-011-14, Maintenance and Inspection of Fire-Protection Systems and Appliances**
- **(e) FP.1/Circ.40 dated 8 January 2010**
- **(f) European Regulation (CE) No. 2037/2000**

PURPOSE:

This Notice is intended to draw attention to 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 began on 1 January 2000 and the effects this is having on the available supply of Halons still being used as a fire extinguishing media. This Notice supersedes Rev. 1/08 and reflects the updating of Appendix 1 of this Notice per updated reference (e) above.

APPLICABILITY:

The Safety of Life at Sea Convention, 1974, as amended, Regulation II-2/10, still permits the use of Halogenated Hydrocarbons (Halons) as a fire extinguishing media on vessels built before 1 October 1994. IMO Assembly Resolution A.719(17) permits the use of CFCs in fixed refrigeration and air conditioning systems on vessels built before 6 November 1992. This Notice is directed to those vessels still so equipped.

BACKGROUND:

1.0 1987 Montreal Protocol

1.1 The United Nations' 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,

Inquiries concerning the subject of this Notice should be directed to the Office of the Maritime Administrator, Republic of the Marshall Islands, c/o Marshall Islands Maritime and Corporate Administrators, Inc., 11495 Commerce Park Drive, Reston, VA 20191-1506 USA.

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 Accordingly, the International Maritime Organization in support of this initiative 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) prohibited the use of CFCs in any new installation on ships 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.

2.0 System Replacement

2.1 The Administration has not established a phase out date for existing Halon installations and systems using CFCs on ships registered in the Marshall Islands flag. It is the Administration's interpretation of the IMO rules regarding the use of Halon and systems containing CFCs that only new installations are prohibited. Existing systems may be continued in use where they are considered fit for their intended purpose and as long as the systems remain serviceable.

2.2 The European Commission considers that supply of a non-EU flagged ship in an EU-port with halon is considered as illegal export. Therefore, please be aware that in case halon is discharged for whatever reason, refilling of such systems on non-EU flagged ships with halon will not be possible and that vessel will be detained until a new fixed fire fighting system is installed on board. Based on this, vessels calling regularly at European ports would be well advised to replace the system as soon as practicable.

3.0 System Inspection and Testing

3.1 Halon systems are to be maintained as per the guidelines set forth in Marine Notice 2-011-14, Maintenance and Inspection of Fire-Protection Systems and Appliances.

3.2 Due to the phasing out of the production and consumption of Halon 1211, 1301 and 2402 that began on 1 January 2000, there has been increasing difficulty with regard to locating servicing facilities and suppliers for the testing and maintenance of existing fixed Halon fire suppression systems and components. It is based on the logistical difficulties associated with this situation that the Administration will consider a relaxed maintenance schedule with regard to the hydrostatic testing of the Halon storage cylinders. Appendix 1 of this Notice contains FP.1/Circ. 40, dated 8 January 2010, on Halon Banking and Reception Facilities.

3.3 Under the relaxed maintenance schedule, the hydrostatic testing interval of 20 years for the Halon storage cylinders may be extended by five (5) years provided the following conditions are met:

1. A cylinder has not been discharged during its service history;

2. Cylinder contents are verified by weighing or isotropic measurement;

3. Cylinder pressure/levels are verified to be acceptable;

4. A thorough visual inspection of cylinders reveal no potential defects; and

5. Cylinders are gauged to the extent considered necessary, and the wall thickness readings kept on board for future comparative reference.

3.3 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.

3.4 Any suspect cylinders that do not meet the provisions stated above must be tested, or taken out of service.

3.5 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.

3.6 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 the Administration.

4.0 Emissions

Subject to the provisions of regulation 3 of MARPOL Annex VI, any deliberate emissions of ozone depleting substances shall be prohibited. 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. This Administration should be notified immediately by any shipowner/operator of emissions arising from leaks of an ozone depleting substance whether or not the leaks were deliberate.

5.0 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 paragraph 2.2 above.

5.2 Marshall Islands 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.

APPENDIX 1

HALON BANKING AND RECEPTION FACILITIES

1 The Sub-Committee on Fire Protection, at its fortieth session (17 to 21 July 1995), having noted that, under the 1992 amendments to the 1974 SOLAS Convention (resolution MSC.27(61)), new installations of halon fire-extinguishing systems had been prohibited as from 1 October 1994, recalled its previous decision that, for the time being and until appropriate halon banking facilities were established, halons need not be withdrawn from existing systems.

2 The Sub-Committee considered it useful that information on the availability of halons at various ports of the world be circulated, as existing halon systems may need to be recharged with recycled halons to comply with the relevant requirements of the 1974 SOLAS Convention.

3 In order to facilitate the dissemination of information on available halon banking facilities, Member Governments were requested (FP/Circ.1) to advise the Secretariat of any national halon banking facilities established under their jurisdiction, together with their address, telephone and fax numbers to enable contacts for the purpose of arranging the deposit of decommissioned halons or the purchase of recycled ones.

4 The attached annex contains the consolidated listing of halon banking and reception facilities and other relevant information based on the information received by the Secretariat during 2009, which supersedes that annexed to FP.1/Circ.37.

5 Member Governments are requested to provide the Secretariat with information on halon banking and reception facilities, which will be included in future FP.1 circulars. Member Governments are also requested to bring the annexed information to the attention of shipowners, ship operators and other parties concerned.

6 In this context, reference is made to MSC-MEPC.1/Circ.3 on *Decreasing Availability of Halons for Marine Uses*, requesting Member Governments to collect data on halons from the maritime sector, in particular to collect information on the number of ships equipped with halon systems (e.g., the total amount of halons installed for their merchant fleets), and to convey this information directly to the Ozone Secretariat.*

* * *

* **Contact information:** Secretariat for the Vienna Convention and its Montreal Protocol – The Ozone Secretariat, United Nations Environment Programme, P.O. Box 30552-00100, Nairobi, Kenya.

ANNEX

HALON BANKING AND RECEPTION FACILITIES AND OTHER RELEVANT INFORMATION

Country	Name and address	Remarks
Argentina	Instituto Nacional de Tecnologia Industrial (INTI) Av. Gral.Paz e/Albarellos y Constituyentes B1650WAB San Martin, Buenos Aires, Argentina Tel: (+54 11) 4724-6200/6300/6400 Website: www.inti.gov.ar /Email: cecon@inti.gov.ar Ing. Ana Maria Di Pace	Procedures: 1) Users of Halon 1301 installations should contact INTI. 2) The INTI offers advice and information on authorized operators. 3) The INTI analyses halon 1301 for withdrawal and recommends a destination for reception halon 1301. 4) Users should contact an authorized operator for the withdrawal of halon 1301. 5) In the case of conversion of the entire system, INTI provides a certificate to the user, once the original system is withdrawn.
Australia	Australian National Halon Bank c/o DASCEM 126 Trennery Crescent ABBOTSFORD VIC 3067 Australia Tel: +61 3 9418 0552 Fax: +61 3 9473 1450 Email: Elvira.nigido@coffey.com.au	In view of the stock of recycled halon 1301 now held by the Australian National Halon Bank, the supply of halon to a foreign flag ship in an Australian port can be guaranteed on request. Nevertheless, such a supply will be limited to a "one off" provision essential for the safe operation of the ship. The supply of halon from the Australian National Halon Bank will be subject to approvals from the Department of the Environmental and Heritage and the Australian Maritime Safety Authority. The Australian national Halon Bank will acquire these approvals on behalf of the foreign flag ship prior to supply. The Australian National Halon Bank is committed to ensuring that a supply of recycled halon 1301 over and above that required for Australia's domestic needs will be retained for the purpose of meeting the emergency needs of foreign flag ships. Recycled halon of the Australian National Halon Bank will meet the requirements of ASTM D5632 as adopted by the U.S. Department of Defense. The Australian National Halon Bank can also safely dispose of contaminated halon, or halon removed from decommissioned fire protection systems.

Country	Name and address	Remarks
Brazil	Sollax Equiprnentos De Seguranca Rua Vieira Do Couto 286 Rocha Miranda CEP 21545-130 Rio de Janeiro Brazil Tel: +55 21 372 8920 Fax: +55 21 372 8791 Enchente Sistemas Contra lncendio Rua Ozeia Moto 233 Higienopolis CEP 2 1 06 1-05 0 Rio de Janeiro Brazil Tel: +55 21 280 2749 Fax: +55 21 280 9294	Halon types: 1211 and 1301 (recycled) Adopted procedures: ISO 7002 requirements Ability: receiving, supply and recharging on request Halon types: 121 1 and 1301 (recycled) Adopted procedures: ISO 7002 requirements Ability: receiving, supply and recharging on request
Canada	Canadian Halon Banking Clearing House and Information Centre: Tel: +1 800 463 6852; Ext. 279 (English) Ext. 261 (English/French) Canadian Standards Development and Certification Organization Underwriters' Laboratories of Canada (ULC) 7 Crouse Road Scarborough, Ontario Canada, M1R 3A9 Tel: +1 416 757 3611 Fax: +1 416 757 3948	Underwriters' Laboratories of Canada (ULC) has been accredited by the Standards Council of Canada to develop and implement National Standards on Fire Protection. The ULC Halon Bank offers clearing house services and puts clients, including international merchant ships in Canada, in touch with appropriate certified companies listed in following pages.

Country	Name and address	Remarks
Canada (continued)	The following companies provide full servicing of Halon 1301 systems (Certification category I): Control fire systems Ltd. 63 Advance Road, Building "A" Toronto, Ontario Canada, M8Z 2S6 Tel: +1 416 236 2371 Fax: +1 416 233 6814 Superior safety Inc. 989 Century Street Winnipeg, Manitoba Canada, R3H OW4 Tel: +1 204 694 0140 Fax: +1 204 694 1590	Services provided: • charging, recharging and hydro-testing of halon system containers; • repair and maintenance of all system components; • determination of quality of halon 1301; • reconditioning of recovered halon to acceptably quality requirements; • dismantling of systems; and • field inspections, including certification of the integrity of installed systems.
	The following companies provide limited servicing of Halon 1301 systems: CASP Aerospace Inc. Pointe-Claire, Quebec Tel: +1 514 630 7777 (A, B only) CFH Securité Inc. Lachine, Quebec Tel: + 1 514 639 0339 Classic Fire Protection Inc. North York, Ontario Tel: + 1 416 740 3000 D & L Engineering Sales Ltd. Halifax, Nova Scotia Tel: + 1 902 429 3790	Services provided (Certification category II): • charging, recharging and hydro-testing of halon system containers; • repair and maintenance of all system components; • dismantling of systems; and • field inspections, including certification of the integrity of installed systems.

Country	Name and address	Remarks
Canada (continued)	D & L Engineering Sales Ltd. Halifax, Nova Scotia Tel: +1 902 429 3790 Douglas Fire Safety Systems Inc, Ottawa, Ontario Tel: + 1 613 733 5348 Equipment Globe Inc. Globe Fire Equipment Inc. Lachine, Quebec Tel: + 1 514 631 2534 Extincteurs prud'homme Maple Grove, Quebec Tel: + 1 514 225 7637 Levitt-Safety Ltd. Oakville, Ontario Tel: +1 905 829 3299 Magna Fire Protection & Security Ltd. Brampton, Ontario Tel: +1 905 791 9606 Sentry Fire Equipment Ltd. Sarnia, Ontario Tel: +1 519 383 6060 Superior Safety Inc. Thunder Bay, Ontario Tel: +1 807 623 2797	

Country	Name and address	Remarks
Canada (continued)	The following companies provide inspection of halon 1301 systems (Certification category III): Acklands Ltd. Richmond Hill, Ontario Tel: +1 905 731 8975 Anderson Fire Protection Ottawa, Ontario Tel: +1 613 228 1881 Cerberus Pyrotechnics Montreal, Quebec Tel: +1 514 725 1025 Cronin Fire Equipment Ltd. Nepean, Ontario Tel: +1 613 727 5330 Dunlop-Beaufort Canada Ltd. Richmond B.C. Tel: +1 604 278 3221 First Stage Fire Protection & Sec. Ltd. Downsview, Ontario Tel: +1 905 475 8641 Lyons Fire Protection Services Inc. Etobicoke, Ontario Tel: +1 416 674 5633 Standard Mechanical Mississauga, Ontario Tel: +1 905 625 9505 Vipond Fire Protection Ltd. Mississauga, Ontario Tel: +1 905 564 7060	Field inspections, including certification of the integrity of installed systems

Country	Name and address	Remarks
Croatia	Antipiros d.o.o. Split 21000 Split Pujanke 77A Iirvatska Tel: +21 377 6221611 or +21 376 7331144 Fax: +21 377 622	Halon banking facilities are available as follows: 1 Halon 1301 - 1,000 kg 2 Halon 1211 - 200 kg
Egypt	Tbrogas Products of Egypt Headquarters Cairo Arab Republic of Egypt Tel: +202 749 5035 Fax: +202 749 5003 Portsaid Free Zone Portsaid, Egypt Tel: +066 325 397 Fax: +066 325 397	Facilities for storage of untreated halon gas as well as direct sale of treated halon gas are available at two stations of this company.
Finland	Federation of Finnish Insurance Companies Bulevardi 28 00120 Helsinki Finland Tel: +358 0 680 401 Fax: +358 0 647 540	The Government of Finland decided not to establish any halon banking facilities within its jurisdiction. However, Finnish insurance companies have established a data bank, which contains contact information of companies who have halon gas in their procession. Decommissioned halons can be inquired from the Federation of Finnish Insurance Companies.
France	ABC Protection Environnement 13 rue du Compas 9142 95074 Saint-Ouen l'Aumône France Tel: +33 1 34 21 93 88 Fax: +33 1 30 37 31 85 AMP 7 rue des Meuniers Z.A. 91520 Egly France Tel: +33 1 69 26 93 44 Fax: +33 1 69 26 92 85	The listed companies are capable of receiving halons for recycling or providing recycled ones.

Country	Name and address	Remarks
France (continued)	Automatismes Sicli 1 rue Yvan Pavlov 93152 Le Blanc Mesnil Cedex France Tel: +33 1 49 39 40 00 Fax: +33 1 48 65 60 04 Dehon Services 26 avenue du Petit Parc 94683 Vincennes Cedex France Tel: +33 1 43 98 75 00 Fax: +33 1 43 98 21 51 Desautel Pare d'Enterprises -BP 9 01121 Mont-Luel Cedex France Tel: +33 72 25 33 00 Fax: +33 72 25 *33* 39 Disse Z.1. avenue Félix Louat 60300 Senlis France Tel: +33 44 60 95 10 Fax: +33 44 53 55 14 EFMT 4 rue Colbert 92700 Colombes France Tel: +33 1 47 86 83 00 Fax: +33 1 47 80 36 03	

Country	Name and address	Remarks
France (continued)	Cerberus Guinard Z.1.-6I7 rue Fourmy-BP 20 78531 Buc Cedex, France Tel: +33 1 30 84 66 00 Fax: +33 1 39 56 42 08 EMS 4 rue Jean Monnet - BP 606 95196 Goussanville France Tel: +33 1 39 88 63 55 Fax: +33 1 39 88 06 73 Kidde Dexareo 4 rue Henri Poincaré 92160 Anthony Cedex Tel: +33 1 46 66 08 08 Fax: +33 1 46 66 23 24 Sfeme Les Linards - BP 1250 03103 Montluçon Cedex France Tel: +33 70 08 12 00 Fax: +33 70 29 37 32	
Italy	GIELLE Antincendio Via Ferri Rocco, 32 70022 Altamura (BA) Italy Tel: +39 080.3118998 Fax: +39 080.3101309 Contact person: Dott. Vincenzo Galantucci Email: v.galantucci@gielle.it Website: www.halonbank.net	The listed companies are authorized halon banking and reception facilities for halon recovery and recycling activities.

Country	Name and address	Remarks
Italy (continued)	Safety Hi-Tech Srl Via degli Olmetti 14, Z.I. 00060 Formello (RM) Italy Tel: +39 06.98267310 Fax: +39 06.98267332 Contact person: Dott. Gianluca Indovino Email: mail@safetyhitech.com Website: www.safetyhitech.com Tazzetti Fluids Srl Corso Europa 600/a 10088 Volpiano (TO) Italy Tel: +39 011.97021 Fax: +39 011.9702496 Contact person: Ivano Bosi Email: ivano.bosi@tazzetti.com Website: www.tazzetti.com Ecofire c/o Centro Servizi l'Acquario Reggio Calabria Italy Tel: +39 0965.595032 Fax: +39 0965.598925 Email: info@consorzioecofire.it Website: www.consorzioecofire.it	
Norway	Spesialavfallsstasjonen Bergen 1nterkommunale Renholdsverk (BIR) Fleslandsvn. 244 N-5068 Flesland, Norway Tel: +47 55 22 91 33 Fax: +47 55 99 14 32	This is purely a reception facility and is not allowed to refill halon containers on board ships.

Country	Name and address	Remarks
Norway (continued)	N.SONTUN A/S Nedre Nøttveit 16, P.O. Box 124 N-5046 Rådal, Norway Tel: +47 55 13 00 94 Fax: +47 55 13 30 33 UNITOR P.O. Box 4 N-4033 Forus, Norway Tel: +47 51 57 01 33 Fax: +47 51 57 12 62 Maritime gmc as P.O. Box 4048 Tasta N-4004 Stavanger, Norway Tel: +47 51 84 80 00 Fax: +47 *51* 84 80 89 NOHA Brannteknikk AS Avd. Trondheim, P.O. Box 762 N-7075 Tiller, Norway Tel: +47 72 88 84 77 Fax: +47 72 88 51 65	The companies listed below this point are accepted to store and refill halon containers on board ships. The halon capacity stored by these companies to refill halon containers on board ships would be between 1,000 kg and 15,000 kg.
Peru		The Government of Peru has decided not to establish halon banking facilities.
Republic of Korea	Hanju Chemical Co., Ltd. 326-79 Songjeong-Ri, Mado-Myeon, Hwaseong-Gun, Kyeonggi-Do, Republic of Korea Tel: +82-339-782-9591/9592/9593 Fax: +82-337-782-9595	Facilities for Halon 1301 and Halon 1211: **Capacity** (tons) / **Number** / **Total** (tons) Fixed tank: 15 / 2 / 30 36 / 1 / 36 Portable Cylinder: 1 / 50 / 50

Country	Name and address	Remarks
Russian Federation	Company "Ozone" St. Petersburg 198330 P.O. Box 37 Tel/Fax: +812 325 1373	The company offers the following services: .1 halons 2402 and 1301 recovery, charging and recharging of fire-extinguishing systems; .2 supply of reclaimed halons 2402, 1301 in any containers; .3 disposal of unsuitable halons; and .4 analytical control of halons quality. Currently the company grants availability of reclaimed halon 2402 in amount of 10 MT and reclaimed halon 1301 in amount of 4 MT.
United States	Halon Recycling Corporation 2111 Wilson Boulevard, 8th Floor Arlington, Virginia 22201 United States of America Tel: +1 800 258 1283 Fax: +1 703 243 2874 Email: harc96@aol.com	The Halon Recycling Corporation (HRC) acts as the contact point both nationally and internationally for U.S. halon recycling and banking and also serves as the focal point for industry and government interaction on halon recycling issues. Further information can be obtained from the HRC website at www.halon.org.
Vanuatu		The Government of Vanuatu has decided not to establish halon banking facilities.

REPUBLIC OF THE MARSHALL ISLANDS

OFFICE OF THE MARITIME ADMINISTRATOR

Marine Notice

No. 2-011-14

Rev. 8/06

TO: **ALL SHIPOWNERS, OPERATORS, MASTERS AND OFFICERS OF MERCHANT SHIPS, AND RECOGNIZED ORGANIZATIONS**

SUBJECT: **Maintenance and Inspection of Fire-Protection Systems and Appliances.**

References:
- **(a) Maritime Regulation 2.11**
- **(b) SOLAS Chapter II-2**
- **(c) International Code for Fire Safety Systems (FSS Code)**
- **(d) MSC/Circ.849 adopted 8 June 1998**
- **(e) MSC/Circ.850 adopted 8 June 1998**
- **(f) MSC/Circ.582 adopted 23 April 1992**
- **(g) Marine Notice 2-011-11, Systems Using Halogenated Hydrocarbons (Halons) and Other Ozone Depleting Substances**

PURPOSE:

This Notice provides Administration requirements for the proper maintenance and inspection of fire protection systems, appliances, and emergency equipment. General requirements applicable to all fire protection systems and appliances, and specific requirements applicable to testing and examination of fixed and portable fire extinguishers, foam systems, and self-contained breathing apparatus are provided. It should be noted that the general requirements contained in this Notice are not an all inclusive list of maintenance or inspection items for fire protection systems fire fighting appliances, and emergency equipment. The specific requirements contained in this Notice address areas where the Administration feels there is need for additional clarification. Vessel owners should be familiar with and follow the equipment manufacturers recommendations, as well as Classification Society requirements and applicable requirements of SOLAS, except where these recommendations or requirements are superseded by this Notice. This Notice supersedes Rev. 2/05.

APPLICABILITY:

This Notice applies to all ships, MODUs and mobile offshore units (MOUs).

REQUIREMENTS

1.0 <u>General Requirements for the Maintenance and Inspection of Fire-Protection Systems and Appliances</u>.

1.1 Operational readiness.

All fire protection systems and appliances should at all times be in good order and available for immediate use while the vessel is in service. If a fire protection system is under repair,

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then suitable arrangements acceptable to the vessel Classification Society and this Administration should be made to ensure safety is not diminished. Prior to sailing or in the case of MODUs and MOUs engaging in operations with a fire protection system under repairs, a dispensation must be obtained from the Administration.

1.2 Maintenance and testing.

Instructions for on-board maintenance, not necessarily by the ship's crew, and testing of active and passive fire protection systems and appliances should be easily understood, illustrated wherever possible, and, as appropriate, should include the following for each system or appliance:

.1 maintenance and repair instructions;

.2 schedule of periodic maintenance;

.3 list of replaceable parts; and

.4 log for records of inspections and maintenance, listing identified non-conformities and their targeted completion dates.

1.3 Weekly testing and inspections.

Weekly inspections should be carried out to ensure that:

.1 all public address systems and general alarm systems are functioning properly; and

.2 breathing apparatus cylinders do not present leakages.

1.4 Monthly examinations and inspections.

Ships officers are responsible for performing monthly examinations of firefighting system equipment and recording the examinations in the ship's official log book. Monthly inspections should be carried out to ensure that:

.1 all fireman's outfits, fire extinguishers, fire hydrants, hoses and nozzles are in place, properly arranged, and are in proper condition;

.2 all fixed fire-fighting system stop valves are in the proper open or closed position, dry pipe sprinkler systems have appropriate pressures as indicated by gauges;

.3 sprinkler system pressure tanks have correct levels of water as indicated by glass gauges;

.4 all sprinkler system pumps automatically operate on reduction of pressure in the systems;

.5 all fire pumps are operated; and

.6 all fixed fire-extinguishing installations using extinguishing gas are free from leakage.

1.5 Quarterly examinations and inspections.

Ships officers are responsible for performing quarterly tests and examinations of the following firefighting system equipment and recording the test and examinations in the ship's official log book. Quarterly inspections should be carried out to ensure that:

.1 all automatic alarms for the sprinkler systems are tested using the test valves for each section;

.2 the international shore connection is in proper condition;

.3 fire stations and lockers providing storage for fire-fighting equipment contain proper inventory and that missing or unserviceable equipment is replaced*;

.4 all fire doors and fire dampers are tested for local operation; and

.5 all CO_2 bottle connections for cable operating system clips should be checked for tightness on fixed fire-extinguishing installations.

1.6 Annual testing and inspections.

As part of the annual statutory survey for Safety Equipment Certification, the following inspections and tests should be carried out to ensure that:

.1 all fire extinguishers are checked for proper location, charging pressure, and condition;

.2 fire detection systems are tested for proper operation, as appropriate;

.3 all fire doors and dampers are tested for remote operation;

.4 all foam-water and water-spray fixed fire-fighting systems are tested for operation;

.5 all accessible components of fixed fire-fighting systems are visually inspected for proper condition;

* The minimum fire hose length is 10 meters. The length should not exceed 15 meters in machinery spaces and 20 meters in other compartments and on open decks (except that hoses of 25 meters in length may be used on open decks when the breadth of the ship is greater than 30 meters).

.6 all fire pumps, including sprinkler system pumps, are flow tested for proper pressures and flows;

.7 all hydrants are tested for operation;

.8 all antifreeze systems are tested for proper solutions;

.9 sprinkler system connections from the ship's fire main are tested for operation;

.10 all fire hoses are hydrostatically tested;

.11 breathing apparatus air recharging systems checked for air quality;

.12 control valves of fixed fire-fighting systems should be inspected; and

.13 air should be blown through the piping of extinguishing gas systems.

The verification of the examinations and tests described in Sections 1.2 thru 1.6 above are an integral part of the annual statutory surveys for the SOLAS Safety Equipment Certificate. The inspection and/or verification of the applicable items in Section 1.2 thru 1.7 shall be to the satisfaction of the attending Classification Society surveyor.

1.7 Five-year service.

At least once every five (5) years, the following inspections and tests should be carried out:

- control valves of fixed fire-fighting systems should be internally inspected.

2.0 Fixed CO_2 and Halon Systems.

2.1 Verification of Cylinder Contents.

Every two (2) years the contents of the cylinders are verified by weight or isotropic measurement as part of the survey for issuance of the SOLAS Safety Equipment Certificate. Weigh scales may be used to verify cylinder contents and recharging is required if the loss in charge is 10 percent or more. Generally the weigh scales are included as part of the CO_2 system equipment in order to satisfy FSS Code, Regulation 5.2.1.1.3.

2.2 Hydrostatic Testing.

All fixed CO_2 and Halon cylinders must be hydrostatically tested as follows:

.1 after each 20 years of service,

.2 prior to recharging a discharged cylinder,

.3 or when visual inspection reveals a potential defect.

Hydrostatic test dates must be stamped on the cylinders. Hydrostatic testing must be performed by an authorized servicing facility which has been certified by a government agency, or Classification Society, and by extinguisher manufacturer to perform this type of work. The facility must be acceptable to the attending Classification Society surveyor. The same facility should recharge the cylinders after testing to demonstrate serviceability.

2.3 Refer to Marine Notice 2-011-11 for additional requirements regarding Fixed Halon System storage cylinder hydrostatic testing requirements.

3.0 Portable Fire Extinguishers.

3.1 Annual Survey.

The examination of the fire extinguishers is an integral part of the annual statutory surveys for the SOLAS Safety Equipment Certification. The fire extinguishers should be examined and, if necessary, serviced annually. The annual servicing/examination of the portable fire extinguishers can be carried out by the crew, if the crew is properly trained and such servicing is acceptable to the vessel's Classification Society, or by an authorized service facility. The Classification Society surveyor must be satisfied with the condition of the extinguishers.

3.2 Servicing of Fire Extinguishers by the Crew of a Vessel.

A vessel crew may service powder, foam, or water type portable fire extinguishers subject to the following:

.1 The equipment required to test, examine, and service the extinguishers is obtained and maintained in a calibrated and serviceable condition.

.2 The crew is properly trained in the testing and examination, and servicing of fire extinguishers and the extinguisher manufacturer's servicing instructions are followed.

.3 The testing and inspection is carried out to the satisfaction of the attending Classification Society surveyor, and if required by the surveyor, in the presence of the surveyor.

3.3 Verification of Fire Extinguishers Contents.

Every two (2) years in conjunction with the issuance of the SOLAS Safety Equipment Certificate the contents of the cylinders must be verified. Weighing of the portable CO_2 cylinders in the presence of the Classification Society surveyor is an acceptable method of verification. Other methods of determining contents of the cylinders, such as isotropic measurement, may also be accepted provided the equipment is properly calibrated, the

operator of the device is trained and qualified in its use, and the Classification Society surveyor is satisfied with the measurements. If an alternative method is used, spot checks of cylinder contents by weighing may be required to verify the accuracy and consistency of the measurement device.

3.4. Spare Charges, Additional Fire Extinguishers, and Refilling of Extinguishers.

.1 For fire extinguishers of the same type, capable of being recharged on board, the spare charges should be provided as follows:

100% for the first 10 extinguishers and 50% for the remaining extinguishers but not more than 60 (fractions to be rounded off to next whole number).

.2 For extinguishers which cannot be recharged by the crew, additional portable fire extinguishers of the same quantity, type, capacity and number as determined in paragraph a above should be provided in lieu of spare charges.

.3 Instructions for recharging the extinguishers should be carried on board. Periodic refilling of the cylinders should be in accordance with the manufacturer's recommendations. Lacking same, refill is required when the extinguishing media starts to lose effectiveness. Partially emptied extinguishers should also be recharged. Only refills approved for the fire extinguisher in question may be used for recharging.

3.5 Authorized Servicing Facilities.

The Classification Society surveyor may also accept a servicing certificate from an authorized servicing facility acceptable to the society for both the annual and biannual examination, servicing and verification of the portable fire extinguishers.

3.6 Hydrostatic Testing of Portable Fire Extinguishers

All portable extinguishers shall be hydrostatically tested every 10 years; however, a hydrostatic test may also be required by the Classification Society surveyor or Marshall Islands Nautical Inspector if visual examination indicates a potential defect in the cylinder. The hydrostatic test date must be permanently marked on the bottles.

3.7 Hydrostatic Testing Facilities.

Hydrostatic testing must be performed by a servicing facility which has been certified by a government agency or Classification Society, and by the extinguisher manufacturer to perform this type of work. The facility must be acceptable to the attending Classification Society surveyor. This same facility should recharge the cylinder after testing to demonstrate serviceability.

4.0 Fixed Foam System.

4.1 Foam Analysis.

The first periodical control of foam concentrates stored on board should be performed after a period of three (3) years and annually thereafter. A record of the age of the foam concentrates and of subsequent controls should be kept on board.

5.0 Self-Contained Breathing Apparatus (SCBA).

5.1 Annual Examination.

All SCBAs shall be examined at least annually as part of the annual statutory survey for the Safety Equipment Certificate (SEC) or MODU Code certificate. If applicable, the breathing apparatus air recharging systems should be checked for air quality as part of the annual statutory survey for the SEC or MODU Code certificate.

5.2 Hydrostatic Testing of Self-contained Breathing Apparatus Cylinders.

Hydrostatic testing of SCBA cylinders shall be carried out once every five (5) years. The hydrostatic test date must be permanently marked on the bottles. Intervals for hydrostatically testing cylinders of the ultra lightweight type may vary and will depend upon the requirements of the cylinder manufacturer and the vessel's Classification Society. Servicing of the cylinders must be performed to the satisfaction of the Classification Society surveyor.

5.3 Spare Charges and Recharging of Breathing Apparatus Air Cylinders.

.1 Two spare charges suitable for use with the breathing apparatus should be provided for each required apparatus.

.2 If passenger ships carrying not more than 36 passengers and cargo ships are equipped with suitable located means for fully recharging the air cylinders free from contamination, only one spare charge is required for each required apparatus.

6.0 Emergency Escape Breathing Devices (EEBDs)

6.1 Number and Locations

.1 SOLAS requires at least two EEBDs to be located in the accommodations and additional EEBDs to be placed in the machinery spaces. The Administration considers "machinery spaces" to mean Category A Machinery Spaces such as engine rooms and boiler rooms. Auxiliary Machinery Spaces such as Steering Gear Compartments, Refrigeration Machinery Rooms, Bow Thruster Compartments, and alike do not have to be fitted with EEBDs.

.2 Inasmuch as MSC/Circ.849 is referenced in SOLAS II-2/13.3.4 and 13.4.3, the Administration is treating the guidelines contained in the Circular as mandatory.

.3 For compliance with the last sentence in Paragraph 4.6 of MSC/Circ.849, only those control spaces and workshops that are remotely located from the machinery space escape routes need be considered.

.4 In achieving compliance with paragraph 4.6 of MSC/Circ.849, a minimum of two (2) EEBDs should be located on each level of the machinery space. If a machinery space contains an enclosed primary escape trunk having a door at each level, only one (1) EEBD need be located on each level*.

6.2 Maintenance and Care

.1 The EEBD should be examined and maintained in accordance with the manufacturer's instructions.

.2 Sufficient spare EEBDs should be kept on board to replace units that are used, reach their expiry date, or otherwise become unserviceable.

.3 Maintenance requirements, manufacturer's trademark and serial number, shelf life with accompanying manufacture date and name of approving authority should be printed on each EEBD.

* The term "level" should be interpreted as meaning a deck where watchstanding personnel reside, workshops and control stations are located, or the crew may be employed during routine maintenance. In essence, two (2) EEBDs are required only on those deck "levels" where people are likely to be employed. Platform decks that serve to divide long ladders into segments and partial decks where personnel are not likely to be employed for any significant period of time are not considered as "levels" and do not require EEBDs.