消 防 處 牌照及審批總區

香港九龍尖沙咀東部康莊道1號5樓 消防總部大廈



FIRE SERVICES DEPARTMENT LICENSING & CERTIFICATION COMMAND

> 5/F, Fire Services Headquarters Building, No. 1 Hong Chong Road, Tsim Sha Tsui East, Kowloon, Hong Kong

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10 October 2011

To: Recipients of FSD Circular Letters

Dear Sirs/Madams,

FSD Circular Letter No. 1/2011 Delisting of Fire Extinguishers Containing Scheduled Substances from the Government Gazette

Reference is made to para.2(b) of FSD Circular Letter No. 3/2009 on "Arrangements upon the Import Banning of Fire Extinguishers Containing Scheduled Substances" dated 11.12.2009.

This Circular Letter announces that the previously type-approved fire extinguishers containing a scheduled substance listed in Part 1, 2, 3, 8 or 9 of the Schedule to the Ozone Layer Protection Ordinance, Cap. 403 will be delisted from the Government Gazette with effect from 1 April 2012. The types/models of fire extinguishers involved are shown in the Appendix to this Circular. Hereafter, **the sale or supply of these fire extinguishers will not be approved**. However, the public may continue to use the existing fire extinguishers including fixed sprayer unit containing scheduled substances provided that they are in efficient working order and properly maintained by Registered Fire Service Installation Contractors (RFSIC). It is strongly advised that early action should be taken to look for suitable replacement.

When considering replacing the delisted fire extinguisher, you are reminded to follow the guidelines on "Certification of Alteration & Addition to FSI" stipulated in Page VI.2 to VI.3 of Part VI of FSD Circular Letter No. 4/96, as well as to take into account the aggregate volume of the premises to be protected and the maximum protected volume of the new substitute. The approved fire extinguishers (including fixed sprayer units) can be found on the Government Gazette or the FSD website via the following hyperlink:-

http://www.hkfsd.gov.hk/home/eng/accep_eq.html

...../P.2

To help protect the ozone layer, you are advised that the fire extinguishing agents (HCFCs or Halons, etc) should be recycled during maintenance of the fire extinguishers containing scheduled substances. You are also reminded that all unwanted fire extinguishers containing scheduled substances requiring disposal are classified as chemical waste under the Waste Disposal (Chemical Waste) (General) Regulation, Cap. 354C, and should be disposed of at a licensed facility.

In view of the above, the following arrangements shall also be implemented on 1 April 2012:-

- (i) FSD Circular Letter No. 9/97 will become obsolete; and
- (ii) Page VIII.5 to VIII.7 of Part VIII of FSD Circular Letter 4/96 have to be amended and replaced by the attached pages.

Yours faithfully,

(LAU Mun-ming) for Director of Fire Services

<u>List of Fire Extinguishers Containing Scheduled Substances to be delisted</u> <u>from the Government Gazette on 1 April 2012</u>

Convenience Marine Products, Inc., Fireboy Division, 100, Commerce Avenue, SW, Grand Rapids, Michigan 49503, U.S.A.

Type/Name: HCFC/Chlorotetrafluoroethane Operating Mode: Automatic (Class B Fire Rating) Model CG2-075 Capacity 1.1 kg Maximum Protected Volume 2.1 m³ Model CG2-125 Capacity 1.9 kg Maximum Protected Volume 3.5 m³ Model CG2-200 Capacity 3.1 kg Maximum Protected Volume 5.7 m³ Model CG2-265 Capacity 4.1 kg Maximum Protected Volume 7.5 m³ Model CG2-370 Capacity 5.7 kg Maximum Protected Volume 10.5 m³ Model CG2-475 Capacity 7.2 kg Maximum Protected Volume 13.5 m³ Model CG2-700 Capacity 10.7 kg Maximum Protected Volume 19.8 m³ Model CG2-900 Capacity 13.8 kg Maximum Protected Volume 25.5 m³ Model CG2-1000 Capacity 15.3 kg Maximum Protected Volume 28.3 m³ Operating Mode: Manual-Automatic (Class B Fire Rating) Model MA2-075 Capacity 1.1 kg Maximum Protected Volume 2.1 m³ Model MA2-125 Capacity 1.9 kg Maximum Protected Volume 3.5 m³ Model MA2-200 Capacity 3.1 kg Maximum Protected Volume 5.7 m³ Model MA2-265 Capacity 4.1 kg Maximum Protected Volume 7.5 m³ Model MA2-370 Capacity 5.7 kg Maximum Protected Volume 10.5 m³ Model MA2-475 Capacity 7.2 kg Maximum Protected Volume 13.5 m³ Model MA2-700 Capacity 10.7 kg Maximum Protected Volume 19.8 m³ Model MA2-900 Capacity 13.8 kg Maximum Protected Volume 25.5 m³ Model MA2-1000 Capacity 15.3 kg Maximum Protected Volume 28.3 m³ Model MA2-1275 Capacity 19.5 kg Maximum Protected Volume 36.1 m³

Flag Fire Equipment Limited, Hwy. #2 & Patillo Road, Tecumseh, Ontario N8N 2L9, Canada. Type: NAF-SIII Model NAF-2 Capacity 0.91 kg Model NAF-5 Capacity 2.27 kg Model NAF-10 Capacity 4.09 kg Model NAF-15 Capacity 5.68 kg Model NAF-20 Capacity 9.07 kg

PT Hartindo Chemicatama Industri, Central Plaza, 16/F., Jl. Jenderal Sudirman Kav. 47, Jakarta 12930, Indonesia. Type/Name: HCFC/Dichlorotrifluoroethane

Model Hartindo AF 11E Capacity 2.5 kg Rating 8A & 70B

SES. Cease Fire, Unit 5, 80 Citizen Court, Markham, Ontario L6G 1A7, Canada. Type: NAFS-III Model NAE-1 Capacity 1 kg Model NAE-2 Capacity 2 kg Model NAE-4 Capacity 4 kg Model NAE-9 Capacity 9 kg SES, Cease Fire, Unit 14, 80 Citizen Court, Markham, Ontario L6G 1A7, Canada. Type: Halogenated Hydrocarbon Compound Model No. NAE-12P Weight of Charge NAF-SIII 12 kg Charged Pressure 1210 kPa Max. Protected Enclosed Volume at 21°C and 8.6% Concentration 33.0 m³
Model No. NAE-16P Weight of Charge NAF-SIII 16 kg Charged Pressure 1210 kPa Max. Protected Enclosed Volume at 21°C and 8.6% Concentration 44.0 m³

Amerex Corporation, P.O. Box 81, Trussville, Alabama 35173-0081, U.S.A. Type: Clean Agent (Halotron I)
Model A384 Size 1.4 lb Fire Rating (UL) 1-B:C
Model A385 Size 2.5 lb Fire Rating (UL) 2-B:C
Model A386 Size 5.0 lb Fire Rating (UL) 5-B:C
Model 387 Size 11.0 lb Fire Rating (UL) 1-A:10-B:C
Model 388 Size 15.5 lb Fire Rating (UL) 2-A:10-B:C
Model B-394 Size 5.5 lb Fire Rating 5-B:C

Badger Fire Protection Inc., Charlottesville, VA, U.S.A.

Type : Clean Agent (Halotron I) Fire Extinguisher

Model 2.5 HB Size 2.5 lb. Rating 2-B:C

Model 5 HB Size 5.0 lb. Rating 5-B:C

Model 11 HB Size 11.0 lb. Rating 1-A:10-B:C

Model 15.5 HB Size 15.5 lb. Rating 2-A:10-B:C

Type : Clean Agent (Halotron I)

Model Proplus 2.5 Hm Size 2.5 lb. Rating 2-B:C

Model Proplus 5 Hm Size 5.0 lb. Rating 5-B:C

Model Proplus 11 Hm Size 11.0 lb. Rating 1-A:10-B:C

Model Proplus 15.5 Hm Size 15.5 lb. Rating 2-A:10-B:C

Buckeye Fire Equipment Co., P.O. Box 50698, 110 Kings Road, Kings Mountain, N.C. 28086-0428

Type : Clean Agent Fire Extinguisher Model 3F-Halotron I Size 3 lb Fire Rating 2-B:C Model 3H-Halotron I Size 3 lb Fire Rating 2-B:C Model 6HSA-Halotron I Size 6 lb Fire Rating 5-B:C Model 6FSA-Halotron I Size 6 lb Fire Rating 5-B:C Model 14SA-Halotron I Size 14 lb Fire Rating 1-A:10-B:C Model 24SB-Halotron I Size 24 lb Fire Rating 2-A:10-B:C Model 12SA-Halotron I Size 12 lb Fire Rating 1-A:10-B:C Model 12SB-Halotron I Size 12 lb Fire Rating 1-A:10-B:C Model 20SB-Halotron I Size 20 lb Fire Rating 2-A:10-B:C Model 2.5F-Halotron I Size 2.5 lb Fire Rating 2-B:C Model 2.5H-Halotron I Size 5 lb Fire Rating 5-B:C Model 5FSA-Halotron I Size 5 lb Fire Rating 5-B:C Consolidated Marine Products, Inc. Fireboy Division, 100 Commerce Avenue, SW, Grand Rapids, Michigan 49503, U.S.A.

Clean Agent Extinguishing : FE-241 (Chlorotetrafluoroethane) Operating Mode: Automatic (Actuated at $165^{\circ}F$ (74 $^{\circ}C$)) Model CG2-025 through-039-FE241 Percentage of Design concentration 8.5 Model CG2-040 through-057-FE241 Percentage of Design concentration 8.5 Model CG2-058 through-075-FE241 Percentage of Design concentration 8.5 Model CG2-076 through-108-FE241 Percentage of Design concentration 8.5 Model CG2-109 through-149-FE241 Percentage of Design concentration 8.5 Model CG2-150 through-179-FE241 Percentage of Design concentration 8.5 Model CG2-180 through-227-FE241 Percentage of Design concentration 8.5 Model CG2-228 through-309-FE241 Percentage of Design concentration 8.5 Model CG2-310 through-413-FE241 Percentage of Design concentration 8.5 Model CG2-414 through-516-FE241 Percentage of Design concentration 8.5 Model CG2-517 through-774-FE241 Percentage of Design concentration 8.5 Model CG2-775 through-1000-FE241 Percentage of Design concentration 8.5 Operating Mode: Manual/Automatic (Actuated at $175^{\circ}F(79^{\circ}C)$) Model MA2-025 through-039-FE241 Percentage of Design concentration 8.5 Model MA2-040 through-057-FE241 Percentage of Design concentration 8.5 Model MA2-058 through-075-FE241 Percentage of Design concentration 8.5 Model MA2-076 through-108-FE241 Percentage of Design concentration 8.5 Model MA2-109 through-149-FE241 Percentage of Design concentration 8.5 Model MA2-150 through-179-FE241 Percentage of Design concentration 8.5 Model MA2-180 through-227-FE241 Percentage of Design concentration 8.5 Model MA2-228 through-309-FE241 Percentage of Design concentration 8.5 Model MA2-310 through-413-FE241 Percentage of Design concentration 8.5 Model MA2-414 through-516-FE241 Percentage of Design concentration 8.5 Model MA2-517 through-774-FE241 Percentage of Design concentration 8.5 Model MA2-775 through-1000-FE241 Percentage of Design concentration 8.5 Model MA2-1001 through-1084-FE241 Percentage of Design concentration 8.5 Model MA2-1085 through-1275-FE241 Percentage of Design concentration 8.5 Model MA2-1276 through-1500-FE241 Percentage of Design concentration 8.5

Lingjack Engineering Works Pte. Ltd., No. 1, Woodlands Terrace, #03-01 Lingjack Industrial Building, Singapore 738471.

Halotron I (C₂HCI₂F₃) Model C-2HSE Size 2 kg Fire Rating 5A:34B Model C-4HSE Size 4 kg Fire Rating 8A:55B Model C-6HSE Size 6 kg Fire Rating 13A:70B

Sea-Fire Extinguishing Marine products, Division of Metalcraft, Inc. 9331A Philadelphia Road, Baltimore, Maryland 21237, U.S.A.

Type : Automatic Fire Extinguishers Clean Extinguishing Agent: FE-241 Model FE25A Max. Protected Volume 25 ft³ (0.7 m³) Model FE50A Max. Protected Volume 50 ft³ (1.4 m³) Model FE75A Max. Protected Volume 75 ft³ (2.1 m³) Model FE100A Max. Protected Volume 100 ft³ (2.8 m³) Model FE125A Max. Protected Volume 125 ft³ (3.5 m³) Model FE150A Max. Protected Volume 150 ft³ (4.2 m³) Model FE175A Max. Protected Volume 175 ft³ (5.0 m³) Model FE200A Max. Protected Volume 200 ft³ (5.7 m³) Model FE225A Max. Protected Volume 225 ft³ (6.4 m³) Model FE250A Max. Protected Volume 250 ft³ (7.1 m³) Model FE275A Max. Protected Volume 275 ft³ (7.8 m³) Model FE300A Max. Protected Volume 300 ft³ (8.5 m³) Model FE325A Max. Protected Volume 325 ft³ (9.2 m³) Model FE350A Max. Protected Volume 350 ft³ (9.9 m³) Model FE375A Max. Protected Volume 375 ft³ (10.6 m³) Model FE400A Max. Protected Volume 400 ft³ (11.3 m³) Model FE425A Max. Protected Volume 425 ft³ (11.9 m³) Model FE450A Max. Protected Volume 450 ft³ (12.7 m³) Model FE475A Max. Protected Volume 475 ft³ (13.4 m³) Model FE500A Max. Protected Volume 500 ft³ (14.2 m³) Model FE550A Max. Protected Volume 550 ft³ (15.6 m³) Model FE600A Max. Protected Volume 600 ft³ (17.0 m³) Model FE650A Max. Protected Volume 650 ft³ (18.4 m³) Model FE700A Max. Protected Volume 700 ft³ (19.8 m³) Model FE750A Max. Protected Volume 750 ft³ (21.2 m³) Model FE800A Max. Protected Volume 800 ft³ (22.7 m³) Model FE850A Max. Protected Volume 850 ft³ (24.1 m³) Model FE900A Max. Protected Volume 900 ft³ (25.5 m³) Model FE950A Max. Protected Volume 950 ft³ (26.9 m³) Model FE1000A Max. Protected Volume 1000 ft³ (28.3 m³) Type : Manual/Automatic Fire Extinguishers Clean Extinguishing Agent: FE-241 Model FE25M Max. Protected Volume 25 ft³ (0.7 m³) Model FE50M Max. Protected Volume 50 ft³ (1.4 m³) Model FE75M Max. Protected Volume 75 ft³ (2.1 m³) Model FE100M Max. Protected Volume 100 ft³ (2.8 m³) Model FE125M Max. Protected Volume 125 ft³ (3.5 m³) Model FE150M Max. Protected Volume 150 ft³ (4.2 m³) Model FE175M Max. Protected Volume 175 ft³ (5.0 m³) Model FE200M Max. Protected Volume 200 ft³ (5.7 m³) Model FE225M Max. Protected Volume 225 ft³ (6.4 m³) Model FE250M Max. Protected Volume 250 ft³ (7.1 m³) Model FE275M Max. Protected Volume 275 ft³ (7.8 m³) Model FE300M Max. Protected Volume 300 ft³ (8.5 m³) Model FE325M Max. Protected Volume 325 ft³ (9.2 m³) Model FE350M Max. Protected Volume 350 ft³ (9.9 m³) Model FE375M Max. Protected Volume 375 ft³ (10.6 m³) Model FE400M Max. Protected Volume 400 ft³ (11.3 m³) Model FE425M Max. Protected Volume 425 ft³ (11.9 m³) Model FE450M Max. Protected Volume 450 ft³ (12.7 m³) Model FE475M Max. Protected Volume 475 ft³ (13.4 m³) Model FE500M Max. Protected Volume 500 ft³ (14.2 m³) Model FE550M Max. Protected Volume 550 ft³ (15.6 m³) Model FE600M Max. Protected Volume 600 ft³ (17.0 m³) Model FE650M Max. Protected Volume 650 ft³ (18.4 m³) Model FE700M Max. Protected Volume 700 ft³ (19.8 m³)

Model FE750M Max. Protected Volume 750 ft ³ (21.2 m ³)
Model FE800M Max. Protected Volume 800 ft ³ (22.7 m ³)
Model FE850M Max. Protected Volume 850 ft ³ (24.1 m ³)
Model FE900M Max. Protected Volume 900 ft ³ (25.5 m ³)
Model FE950M Max. Protected Volume 950 ft ³ (26.9 m ³)
Model FE1000M Max. Protected Volume 1000 ft ³ (28.3 m ³)
Model FE1100M Max. Protected Volume 1100 ft ³ (31.1 m ³)
Model FE1200M Max. Protected Volume 1200 ft ³ (33.9 m ³)
Model FE1300M Max. Protected Volume 1300 ft ³ (36.8 m ³)
Model FE1400M Max. Protected Volume 1400 ft ³ (39.6 m ³)
Model FE1500M Max. Protected Volume 1500 ft ³ (42.5 m ³)

Walter Kidde, The Fire Extinguishing Company 1394 South Third Street, Mebane, North Caroline 27302, U.S.A.

Type: Clean Agent Automatic, Automatic/Manual, (Optional) Fire Extinguishers utilising FE-241

Automatic Actuation Temp.: 79°C

Extinguishing Agent: FE-241

Model FW75 FE241 Protected Volume 2.1m³ Size 1.27 kg

Model FW150 FE241 Protected Volume 4.2m³ Size 2.55 kg

Model FW200 FE241 Protected Volume $5.7m^3$ Size 3.40 kg

Model FW300 FE241 Protected Volume 8.5m³ Size 5.10 kg

Model FW425 FE241 Protected Volume 12.0m³ Size 7.25 kg

Model FW600 FE241 Protected Volume 17.0m³ Size 10.20 kg

Model FW750 FE241 Protected Volume 21.2m³ Size 12.79 kg

Model FW1100 FE241 Protected Volume 31.1m³ Size 18.75 kg

6.2 All premises protected by CO₂, BCF or BTM fixed installations or sprayer units shall be suitably marked with the appropriate symbol on, or near the entrance door. These symbols are to be of the design, colour and size as shown on the diagram at Appendix A.

7. Halon Modular Systems in Existing Buildings

7.1 Types and Standards

- 7.1.1 Halon 1301 modular system shall be installed in accordance with NFPA Standard 12A.
- 7.1.2 Halon 1211 modular system shall be installed in accordance with NFPA Standard 12B.

7.2 <u>Approvals</u>

- 7.2.1 All such systems shall be tested and approved by an organisation recognised by the Fire Services Department. Enquiries concerning these organisations should be made to the Fire Protection Bureau.
- 7.2.2 Any ancillary equipment used shall be of the approved type and accepted by this Department.

7.3 <u>Containers</u>

- 7.3.1 Containers should preferably be located outside protected areas. However, containers may be located within the protected areas when it is possible to do so in a manner that is unlikely to impair system performance when exposed to fire.
- 7.3.2 When containers are located within protected areas or in places where they may not be readily accessible during a fire, provision shall be made for manual control (preferably mechanical) in a readily accessible location outside the protected areas

8. <u>Clean Fire Extinguishing Agents</u>

FM200 (Heptafluoropropane) NAFS-III (HCFC Blend A) (**Import banned since 1.1.2010**) Inergen (Nitrogen, Argon and Carbon Dioxide) HCFC-123 (Dichlorotrifluoroethane) (**Import banned since 1.1.2010**) HCFC-124 (Chlorotetrafluoroethane) (**Import banned since 1.1.2010**) CEA-410 (Perfluorobutane) HFC-23 (Trifluoromethane)

Date: 22 October 1996 (Revised on 10 October 2011) Signed (LAU Mun-ming) for Director of Fire Services

8.1 <u>Automatically Operated Total Flooding Systems</u>

FM 200, Inergen, CEA-410 and HFC-23 systems are acceptable for use in automatic systems. Installations design must be in accordance with NFPA Standard 2001.

8.2 Fixed Sprayer Units

Automatic type fire extinguisher are acceptable for use for protection of small Category 5 Dangerous Goods Stores, certain types of electrical installations and in certain circumstances as an alternative to automatic CO_2 and BTM installations with aggregate volume less than or equal to $42.5m^3$. The approved fixed sprayer units with respective maximum protection volumes can be found on the Government Gazette or the FSD website via the following hyperlink:-

http://www.hkfsd.gov.hk/home/eng/accep_eq.html

- 8.3 Layout plans for both total flooding systems and fixed sprayer units are to be submitted to this Department for consideration prior to installation.
- 8.4 All premises protected by FM 200, NAFS-III, Inergen, CEA-410 and HFC-23 fixed installations or NAFS-III and HCFC-124 fixed sprayer units shall be suitably marked with the appropriate symbol on or near the entrance door. These symbols are to be of the design, colour and size as shown on the diagrams as Appendices B to E.
- 8.5 Clean Agent Modular Systems
 - 8.5.1 Clean agent modular systems shall be installed in accordance with NFPA Standard 2001.
 - 8.5.2 Requirements for approvals and the location of containers are same as for the Halon modular systems in paragraph 7.

Date: 22 October 1996 (Revised on 10 October 2011) Signed (LAU Mun-ming) for Director of Fire Services