

MARINE DEPARTMENT NOTICE NO. 49 OF 2019

(Statutory Requirement and related information)

Provision of Alternative Fire-fighting Apparatus **On Board Locally Licensed Vessels** **(Dual Purpose Nozzle and Fixed Aerosol Fire-extinguishing System)**

For the attention of owners, agents and coxswains of local vessels, NOTICE IS HEREBY GIVEN that all locally licensed vessels under the Merchant Shipping (Local Vessels) Ordinance (Cap.548) shall follow the practical guidance on the use of fire-fighting apparatus set out in Part A and Part B below as an alternative to the provision of jet nozzles and spray nozzles and the provision of fixed CO₂ fire-extinguishing system respectively stipulated in Part 2, Schedule 4 of Merchant Shipping (Local Vessels) (Safety and Survey) Regulation (Cap.548G) and MDN No. 63 of 2015 (for locally licensed Class II oil carriers that operate within waters of Hong Kong) (“ the **Requirements**”).

Part A: Dual Purpose Nozzle Incorporating a Shut-off

2. The use of dual purpose nozzle incorporating a shut-off and its quantity meeting “the **requirements**” set out in Appendix I (marked green in color) is accepted as an alternative to the provision of jet nozzles and spray nozzles (marked yellow in color) for the compliance with the Requirements.

Part B: Aerosol System

3. The installation of Aerosol System meeting the following “**requirements**” is accepted as an alternative to the provision of fixed CO₂ fire-extinguishing system for compliance with the Requirements:

- i. The Aerosol System shall be type approved by acceptable Classification Societies or Administrations according to the most updated IMO MSC.1/Circ 1270 "Revised Guidelines for the Approval of Fixed Aerosol Fire-extinguishing Systems Equivalent to Fixed Gas Fire-extinguishing Systems, as referred to in SOLAS 74, for Machinery Spaces";
- ii. The design calculation of the Aerosol System shall be performed by the maker;
- iii. The electrical components of the system located in the protected spaces shall be of

suitable protection against fire and mechanical damage;

- iv. The quantity of aerosol agent, storage, piping, nozzle, generator, alarm, electrical control cables, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of Cap. 548G; and
- v. The periodical maintenance program shall comply with the International Code for Fire Safety System (FSS Code).

4. This NOTICE is issued in pursuant to Section 84 of the Merchant Shipping (Local Vessels) (Safety and Survey) Regulation (Cap.548G).

5. For any enquiry, please contact Local Vessels Safety Section, 23rd Floor, Harbour Building, 38 Pier Road, Central, Hong Kong (Tel. 2852 4444 or Fax. 2542 4679).

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Director of Marine

Marine Department

Government of the HKSAR

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Action File : L/M No.14/2019 in MDSD/LVS 800/3/1

APPENDIX I

Note: Relevant “Notes” appended in Part 2, Schedule 4 of Cap. 548G shall continue to be effective in the alternative requirements.

Table 1

- Class I vessels (excluding floating restaurants and stationary vessels that are ceremonial boats)
- Class IV vessels that are licensed to carry more than 60 passengers
- Class IV vessels that are licensed to carry 13 to 60 passengers but are let for hire or reward

Requirement of fire main, hose, hydrant and nozzle in Table 1 in Part 2, Schedule 4 of Cap.548G	Alternative requirement of fire main, hose, hydrant and nozzle in Table 1 in Part 2, Schedule 4 of Cap. 548G with the use of dual purpose nozzle
<ul style="list-style-type: none">• For $L < 24\text{m}$:<ul style="list-style-type: none">- One set of fire main, hose, hydrant and jet nozzle.• For $L \geq 24\text{m}$:<ul style="list-style-type: none">- One set of fire main, hose, hydrant and jet nozzle to be provided for each pump;- One hydrant in each engine room; and- One spray nozzle on each deck and in each engine room.	<ul style="list-style-type: none">• For $L < 24\text{m}$:<ul style="list-style-type: none">- One set of fire main, hose, hydrant and dual purpose nozzle.• For $L \geq 24\text{m}$:<ul style="list-style-type: none">- One set of fire main, hose, hydrant and dual purpose nozzle for the each pump; and- At least one hydrant, hose, and dual purpose nozzle in each engine room.

Table 2

- Class I vessels – floating restaurants, and stationary vessels that are ceremonial boats

Requirement of fire main, hose, hydrant and nozzle in Table 2 in Part 2, Schedule 4 of Cap.548G	Alternative requirement of fire main, hose, hydrant and nozzle in Table 2 in Part 2, Schedule 4 of Cap. 548G with the use of dual purpose nozzle
<ul style="list-style-type: none">• For fire main and hose - the quantity, size, length, type, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation;• For hydrant on deck - the quantity, size, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation;• For hydrant in machinery space - one is required;• For jet nozzle - the quantity, size, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation;• For spray nozzle - one on each deck and one in each machinery space;• For each fire station - one fire hose of 20 mm diameter on each deck, one jet and one spray nozzle.	<ul style="list-style-type: none">• For fire main, hose, hydrant and dual purpose nozzle - the quantity, size, length, type, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation;• For hydrant, hose and dual purpose nozzle in machinery space - one is required;• For each fire station - at least one fire hose of 20 mm diameter and one dual purpose nozzle.

Table 3

- Class II vessels (excluding floating docks, floating workshops, oil carriers and stationary vessels that are kitchen boats) that operate within waters of Hong Kong
- Class IV vessels that are licensed to carry not more than 12 passengers but are let for hire of reward

Requirement of fire main, hose, hydrant and nozzle in Table 3 in Part 2, Schedule 4 of Cap.548G	Alternative requirement of fire main, hose, hydrant and nozzle in Table 3 in Part 2, Schedule 4 of Cap. 548G with the use of dual purpose nozzle
<ul style="list-style-type: none">• Class II Cat A vessels $L < 75\text{m}$:<ul style="list-style-type: none">- For fire main, hose, hydrant and jet nozzle - the quantity, size, length, type, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation.• Additional requirement for Class II Cat A vessels $L \geq 24\text{m}$:<ul style="list-style-type: none">- One hydrant in each engine room; and- One spray nozzle on each deck and in each engine room.	<ul style="list-style-type: none">• Class II Cat A vessels $L < 75\text{m}$:<ul style="list-style-type: none">- For fire main, hose, hydrant and dual purpose nozzle - the quantity, size, length, type, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation.• Additional requirement for Class II Cat A vessels $L \geq 24\text{m}$:<ul style="list-style-type: none">- At least one hydrant, hose and dual purpose nozzle in each engine room.

Table 4

- Class II vessels - floating docks, floating workshops and stationary vessels that are kitchen boats and operate within waters of Hong Kong

Requirement of fire main, hose, hydrant and nozzle in Table 4 in Part 2, Schedule 4 of Cap.548G	Alternative requirement of fire main, hose, hydrant and nozzle in Table 4 in Part 2, Schedule 4 of Cap. 548G with the use of dual purpose nozzle
<ul style="list-style-type: none">• For fire main, hose, hydrant and jet nozzle - the quantity, size, length, type, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation.• Additional requirement for floating docks:<ul style="list-style-type: none">- One spray nozzle on each deck and two spray nozzles within each machinery space.• Additional requirement for floating workshop (including welding barge) and kitchen boat:<ul style="list-style-type: none">- One spray nozzle on each deck and one spray nozzle within each machinery space.	<ul style="list-style-type: none">• For fire main, hose, hydrant and dual purpose nozzle - the quantity, size, length, type, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation.

Table 5

- Class II vessels that are not oil carriers and operate within river trade limits

Requirement of fire main, hose, hydrant and nozzle in Table 5 in Part 2, Schedule 4 of Cap.548G	Alternative requirement of fire main, hose, hydrant and nozzle in Table 5 in Part 2, Schedule 4 of Cap. 548G with the use of dual purpose nozzle
<ul style="list-style-type: none">• For fire main, hose, hydrant and jet nozzle - the quantity, size, length, type, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation.• Additional requirement for $24\text{m} \leq L < 50\text{m}$:<ul style="list-style-type: none">- One hydrant in engine room; and- One spray nozzle on each deck and one spray nozzle in each engine room.• Additional requirement for $50\text{m} \leq L < 60\text{m}$:<ul style="list-style-type: none">- One hydrant in engine room; and- Two spray nozzles on each deck and one spray nozzle in each engine room.• Additional requirement for $60\text{m} \leq L < 75\text{m}$<ul style="list-style-type: none">- Two hydrants in engine room; and- Two spray nozzles on each deck and one spray nozzle in each engine room.	<ul style="list-style-type: none">• For fire main, hose, hydrant and dual purpose nozzle - the quantity, size, length, type, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation.• Additional requirement for $24\text{m} \leq L < 60\text{m}$:<ul style="list-style-type: none">- At least one hydrant, hose and dual purpose nozzle in engine room.• Additional requirement for $60\text{m} \leq L < 75\text{m}$:<ul style="list-style-type: none">- At least two hydrants, one hose and one dual purpose nozzle in engine room.

Table 6

- Class II vessels - oil carriers that operate within river trade limits

Requirement of fire main, hose, hydrant and nozzle in Table 6 in Part 2, Schedule 4 of Cap.548G	Alternative requirement of fire main, hose, hydrant and nozzle in Table 6 in Part 2, Schedule 4 of Cap. 548G with the use of dual purpose nozzle
<ul style="list-style-type: none">• For fire main, hose, hydrant and jet nozzle - the quantity, size, length, type, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation.• Additional requirement for $L < 24\text{m}$:<ul style="list-style-type: none">- One spray nozzle on each deck.• Additional requirement for $24\text{m} \leq L < 50\text{m}$:<ul style="list-style-type: none">- One hydrant in engine room; and- One spray nozzle on each deck and two spray nozzles in each engine room.• Additional requirement for $50\text{m} \leq L < 60\text{m}$:<ul style="list-style-type: none">- One hydrant in engine room; and- Two spray nozzles on each deck and two spray nozzles in each engine room.• Additional requirement for $60\text{m} \leq L < 75\text{m}$:<ul style="list-style-type: none">- Two hydrants in engine room; and- Three spray nozzles on each deck and two spray nozzles in each engine room.	<ul style="list-style-type: none">• For fire main, hose, hydrant and dual purpose nozzle - the quantity, size, length, type, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation.• Additional requirement for $24\text{m} \leq L < 60\text{m}$:<ul style="list-style-type: none">- At least one hydrant, hose and dual purpose nozzle in engine room.• Additional requirement for $60\text{m} \leq L < 75\text{m}$:<ul style="list-style-type: none">- At least two hydrants, two hoses and two dual purpose nozzles in engine room.

Table 7

- Class II vessels - oil carriers that operate within waters of Hong Kong

Requirement of fire main, hose, hydrant and nozzle in MDN. 63 of 2015	Alternative requirement of fire main, hose, hydrant and nozzle in MDN. 63 of 2015 with the use of dual purpose nozzle
<ul style="list-style-type: none">• For fire main, hose, hydrant and jet nozzle - the quantity, size, length, type, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation.• Additional requirement for $L < 24\text{m}$:<ul style="list-style-type: none">- One spray nozzle on each deck.• Additional requirement for $24\text{m} \leq L < 50\text{m}$:<ul style="list-style-type: none">- One hydrant in engine room; and- One spray nozzle on each deck and two spray nozzles in each engine room.• Additional requirement for $50\text{m} \leq L < 60\text{m}$:<ul style="list-style-type: none">- One hydrant in engine room; and- Two spray nozzles on each deck and two spray nozzles in each engine room.• Additional requirement for $60\text{m} \leq L < 75\text{m}$:<ul style="list-style-type: none">- Two hydrants in engine room; and- Three spray nozzles on each deck and two spray nozzles in each engine room.	<ul style="list-style-type: none">• For fire main, hose, hydrant and dual purpose nozzle - the quantity, size, length, type, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation.• Additional requirement for $24\text{m} \leq L < 60\text{m}$:<ul style="list-style-type: none">- At least one hydrant, hose and dual purpose nozzle in engine room.• Additional requirement for $60\text{m} \leq L < 75\text{m}$:<ul style="list-style-type: none">- At least two hydrants, two hoses and two dual purpose nozzles in engine room.

Table 8

- Class III vessels

Requirement of fire main, hose, hydrant and nozzle in Table 7 in Part 2, Schedule 4 of Cap.548G	Alternative requirement of fire main, hose, hydrant and nozzle in Table 7 in Part 2, Schedule 4 of Cap. 548G with the use of dual purpose nozzle
<ul style="list-style-type: none">• Cat A vessels $L < 45\text{m}$:<ul style="list-style-type: none">- Fire main, hose, hydrant and jet nozzle - the quantity, size, length, type, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation;- One hydrant in engine room; and- One spray nozzle on each deck and one spray nozzle in each engine room*.* An engine room that contains internal combustion type machinery having in aggregate a total power output of not less than 375 kW shall be provided with at least one dual purpose nozzle.• Cat B new vessels $L \geq 10$ that hold a valid port clearances or are exempted under section 69(1) of the Ordinance from complying with section 28(1) of the Ordinance:<ul style="list-style-type: none">- One set of fire main, hose, hydrant and jet nozzle.	<ul style="list-style-type: none">• Cat A vessels $L < 45\text{m}$:<ul style="list-style-type: none">- Fire main, hose, hydrant and jet nozzle - the quantity, size, length, type, location and arrangement shall be in accordance with the relevant plans approved under Part 3 of this Regulation; and- At least one hydrant, hose and dual purpose nozzle in engine room.• Cat B new vessels $L \geq 10$ that hold valid port clearances or are exempted under section 69(1) of the Ordinance from complying with section 28(1) of the Ordinance:<ul style="list-style-type: none">- One set of fire main, hose, hydrant and dual purpose nozzle.

Table 9

- Class IV vessels that are licensed to carry not more than 60 passengers and are not let for hire or reward and operate within waters of Hong Kong

Requirement of fire main, hose, hydrant and nozzle in Table 8 in Part 2, Schedule 4 of Cap.548G	Alternative requirement of fire main, hose, hydrant and nozzle in Table 8 in Part 2, Schedule 4 of Cap. 548G with the use of dual purpose nozzle
<ul style="list-style-type: none">• For vessels $15\text{m} \leq L < 24\text{m}$:<ul style="list-style-type: none">- One hose and one jet nozzle and the number of hydrants that capable of delivering one jet of water having a throw of not less than 6 m which can be directed on to any part of the vessel through a hose with a 10 mm diameter nozzle• For vessels $L \geq 24\text{m}$:<ul style="list-style-type: none">- Two hoses, two jet nozzles, one spray nozzle and the number of hydrants that capable of delivering one jet of water having a throw of not less than 6 m which can be directed on to any part of the vessel through a hose with a 10 mm diameter nozzle	<ul style="list-style-type: none">• For vessels $15\text{m} \leq L < 24\text{m}$:<ul style="list-style-type: none">- One hose and one dual purpose nozzle and the number of hydrants that capable of delivering one jet of water having a throw of not less than 6 m which can be directed on to any part of the vessel through a hose with the nozzle• For vessels $L \geq 24\text{m}$:<ul style="list-style-type: none">- Two hoses, two dual purpose nozzles and the number of hydrants that capable of delivering one jet of water having a throw of not less than 6 m which can be directed on to any part of the vessel through a hose with the nozzle