

shall be provided with a fire main, water-service pipes, and hydrants complying with the provision of clause 17 of the General Code and with fire hoses and nozzles complying with the provisions of clause 18 of the General Code.

(2) In every ship of Class VI of 45m in length or over, the arrangement of fire-main and water-service pipes and the number and position of fire hydrants, hoses, and nozzles shall be such that:

(a) At least 2 jets of water may reach any part of the ship normally accessible to passengers or crew while the ship is being navigated and any store room and any part of any cargo space when empty; and

(b) In accommodation spaces, service spaces, and machinery spaces, the requirements of paragraph (a) of this subclause can be complied with when all watertight doors and all doors in main vertical zone bulkheads are closed; and

(c) In every such ship with a gross tonnage of 1000 or over, at least 1 jet of water is immediately available from any 1 hydrant, hose, or nozzle in an interior location, and that arrangements shall be made to ensure the continuation of the output of water by the automatic starting of a fire pump; and

(d) Every machinery space of category A shall be provided with at least 1 fire hydrant.

(3) Every ship of Class VI of 45m in length and over shall be provided with at least 1 hose and 1 dual-purpose nozzle for every hydrant fitted in the ship, but in any event not less than 2 hoses and nozzles.

(4) Every ship of Class VI of 45m in length or over shall be provided with water-fog applicators as follows:

(a) One in every machinery space of Category A and

(b) One for each pair of fire crew outfits.

**6. Portable fire extinguishers in accommodation and service spaces**—Every ship of Class VI of 45m in length and over shall be provided with at least 1 portable fire extinguisher in each of the passenger spaces above the bulkhead deck, and with at least 2 such extinguishers in each of the crew spaces and of the passenger spaces below that deck. At least 1 portable fire extinguisher and 1 fire blanket shall be available for use in any galley. At least 1 portable fire extinguisher shall be provided in each control station.

**7. Machinery spaces of Category A containing oil fired boilers or oil burning equipment**—(1) In every ship of Class VI of 45m in length or over there shall be provided for the protection of any machinery space of Category A containing any oil fired boilers or oil fuel units:

(a) One of the following fixed fire extinguishing systems:

(i) A pressure water-spraying system complying with the requirements of the Performance Standard referred to in clause 22 of the General Code.

(ii) A fire-smothering gas system complying with the requirements of the Performance Standard referred to in clause 24 of the General Code.

(iii) A high-expansion foam fire-extinguishing system complying with the requirements of the Performance Standard referred to in clause 25 of the General Code.

If the engine and boiler rooms are not entirely separate, or if fuel oil can drain from the boiler room into the engine room, the combined engine and boiler room shall for the purpose of this paragraph be regarded as a single space.

(b) In each boiler room one or more foam fire extinguishers, each of at least 45 litres capacity, or carbon-dioxide fire extinguishers, each of at least 16 kg capacity. The extinguishers shall be sited so as to be readily accessible in the event of fire, and they shall be sufficient in number to enable foam or carbon dioxide to be directed on to any part of the boiler room or spaces containing any part of the oil-fuel installation.

(c) In each firing space and in each space which contains any part of any oil-fuel installation, at least 2 portable fire extinguishers.

(d) In each firing space, a receptacle containing at least 250 litres of sand or other dry material suitable for quenching oil fires, together with a scoop for its distribution, or, alternatively, an additional portable fire extinguisher.

**8. Machinery spaces of Category A containing internal combustion type machinery**—(1) In every ship of Class VI of 45m in length and over there shall be provided for the protection of every machinery space of Category A containing internal-combustion type machinery.

(a) Any one of the following fixed fire extinguishing systems:

(i) A pressure water-spraying system complying with the requirements of the Performance Standard referred to in clause 22 of the General Code;

(ii) A fire smothering gas system complying with the requirements of the Performance Standard referred to in clause 24 of the General Code.

(iii) A high expansion foam fire-extinguishing system complying with the requirements of the Performance Standard referred to in clause 25 of the General Code.

(b) 1 foam fire extinguisher of not less than 45 litres capacity or a carbon-dioxide fire extinguisher of not less than 16 kg capacity.

Provided that such an extinguisher shall not be required in any machinery space containing only auxiliary machinery having an aggregate power of less than 375 kW,

(c) Sufficient portable fire extinguishers so located that 1 portable extinguisher is not more than 10m walking distance from any point in the space.

Provided that not less than 2 such extinguishers shall be required in any space containing main propulsion machinery, and not less than 1 such extinguisher shall be required in any space containing only auxiliary machinery.

(2) Every ship of Class VI of 45m in length and over fitted with internal-combustion propelling machinery which uses fuel having a flash point below 60°C shall be provided with a fixed installation for the discharge of fire-smothering gas into the space containing such propelling machinery and into any space containing the storage tanks of such fuel.

(3) The fixed installation required under subclause (2) of this clause shall have a capacity in accordance with the following:

(a) If discharging carbon dioxide—mass required:

Net Volume of Spaces to be Protected: to be Protected:	Mass of Carbon Dioxide in Kilograms
0 to 5m <sup>3</sup>	1.0 kg CO <sub>2</sub> per 0.87m <sup>3</sup> space
5 to 15m <sup>3</sup>	1.0 kg CO <sub>2</sub> per 0.93m <sup>3</sup> space
15 to 45m <sup>3</sup>	1.0 kg CO <sub>2</sub> per 1.00m <sup>3</sup> space
45 to 125m <sup>3</sup>	1.0 kg CO <sub>2</sub> per 1.12m <sup>3</sup> space
125m <sup>3</sup> and over	1.0 kg CO <sub>2</sub> per 1.25m <sup>3</sup> space

(b) If discharging a fire-smothering gas other than carbon dioxide the installation shall have a capacity approved by the Chief Surveyor.

(4) The fixed installation required under subclause (2) of this clause may be manually or automatically operated, but any automatically operated installation shall be provided with an alarm giving audible warning to persons within the protected spaces.

(5) Where in the opinion of a Surveyor the propelling machinery and fuel-storage tanks of any ship to which this clause applies are so open to the atmosphere as to make the fitting of a fixed fire-smothering gas installation ineffective, he may allow the requirements of subclause (2) of this clause to be dispensed with.

(6) Every ship of Class VI of 45m in length and over fitted with propelling machinery which uses fuel having a flash point of less than 60°C shall be provided with a system for the