

Schedule

Performance Standard for Fixed Pressure Water Spraying Systems**PART I****Fixed Pressure Water Spraying Systems for Machinery Spaces and Cargo Pump Rooms**

1. General—Every fixed pressure water spraying system shall be provided with a pump, piping system, control valves and spraying nozzles. The pump provided for machinery space protection shall not be used for any other purpose except that the Chief Surveyor may permit the pump to be used for supplying cargo pump room or cargo space water spraying systems where such systems are permitted. For cargo pump room protection the water supply may be from the ship's main fire pumps provided such pumps comply with the requirements of this Performance Standard.

2. Spraying nozzles—(1) The spraying nozzles shall be of such a type, sufficient in number and so arranged as to ensure an effective average distribution of water in accordance with the following table:

Protected Area	Application Rate Litres per sq. metre/min
Boiler fronts or roof firing areas, oil fuel units, centrifugal separators (not oily water separators), oil fuel purifiers and clarifiers.	20
Hot oil fuel pipes near exhaust pipes or similar heated surfaces or main or auxiliary diesel engines.	10
Tank top areas and oil tanks not forming part of the ship's structure.	5
Cargo pump rooms.	10

(2) Spraying nozzles shall be fitted above bilges, tank tops and other areas over which oil fuel is liable to spread and above other main fire hazards in the spaces to be protected.

(3) Means shall be provided which will prevent nozzles from becoming clogged by impurities in the water or corrosion of piping, nozzles, valves and pumps.

3. System distribution and control—The water spraying system may be divided into sections and shall be controlled from distribution manifolds the valves of which shall be capable of being operated from easily accessible positions outside the spaces to be protected and which will not be readily cut off by an outbreak of fire within the protected space.

4. Pumps and piping—(1) The water spraying system shall be kept charged at the necessary pressure and the pump supplying the water for the system shall be automatically put into action by a pressure drop in the system.

(2) The pump may be driven by independent internal combustion type machinery but if it is dependent upon power being supplied from the emergency generator fitted in compliance with the provisions of the Codes of Practice issued under The Shipping (Construction) Regulations 1989 the generator shall be arranged to start automatically in case of main power failure so that power for the pump is immediately available. When the pump is driven by independent internal combustion type machinery it shall be so situated that a fire in the protected space will not affect the air supply to the machinery and the pump compartment.

(3) The pump shall be capable of supplying water at the necessary pressure simultaneously to all sections of the water spraying system in any one compartment to be protected. The pump and its controls shall be installed outside the space or spaces to be protected. It shall not be possible for a fire in the space or spaces protected by the water spraying system to put the system out of action.

5. Miscellaneous—No part of the water spraying system shall be situated forward of the collision bulkhead in any passenger ship.

PART II**Fixed Pressure Water Spraying Systems for Cargo Spaces**

6. General—Every fixed pressure water spraying system shall be provided with a pump, piping system, control valves and spraying nozzles.

7. Spraying nozzles—(1) The nozzles shall be of an approved full bore type and shall be arranged so as to secure an effective distribution of water in the spaces which are to be protected.

(2) The system shall be such as will provide water application at a rate of at least 3.5 litres per square metre per minute for spaces with a deck height not greater than 2.5 metres and at least 5 litres per square metre per minute for spaces with a deck height greater than 2.5 metres.

(3) Precautions shall be taken to prevent the nozzles from becoming clogged by impurities in the water.

8. System distribution and control—(1) The system shall cover the full breadth of the protected space except that in ships where the protected space is subdivided with longitudinal Class "A" divisions the breadth of the sections may be reduced accordingly. In ships of Classes I, or VII and in ships of Classes II or VIII of 76 metres or over in length or where the length of the enclosed part of the protected space is 50 metres or over, the system may be divided into sections provided they are at least 20 metres in length. In ships of other classes the length of a section may be less than 20 metres but shall be not less than 10 metres provided the capacity of the pumps are capable of supplying the two largest adjacent sections simultaneously at the application rate referred to in clause 7(2) of this Performance Standard.

(2) The distribution valves for the system shall be situated in an easily accessible position adjacent to, but outside, the space to be protected which will not readily be cut off by a fire within the space. Direct access to the distribution valves from the protected spaces and from outside the spaces shall be provided. Adequate ventilation shall be fitted in the space containing the distribution valves.

9. Pumps and piping—(1) The water supply to the system shall be provided by a pump or pumps, other than the ship's required fire pumps which shall additionally be connected to the system by a lockable non-return valve which will prevent a back flow from the system into the fire main.

(2) The principal pump or pumps shall be capable of supplying simultaneously, at all times, at the required pressure all nozzles in the protected spaces, or two adjacent sections if this is less, a quantity of water in accordance with clause 7(1) and 7(2) of this Performance Standard.

(3) The principal pump or pumps shall be capable of being brought into operation by remote control, which may be manually activated, from the position at which the distribution valves are situated.

(4) In ships of Class I and in ships of Class II of 76 metres or over in length or where the length of the enclosed part of the protected space is 50 metres or over the principal pump or pumps shall be situated in a position reasonably remote from the protected space and from any machinery space of Category A. In ships of other Classes the principal pump or pumps shall be situated outside the protected space but may be situated within any machinery space.

(5) In ships of Class I and in ships of Class II of 76 metres or over in length or where the length of the enclosed part of the protected space is 50 metres or over, if the principal pump or pumps are electrically driven there shall be two sources of power, one of which shall be the emergency generator. In ships of other Classes there shall be two sources of power which may be two of the auxiliary generators provided they are independently driven. If the principal pump or pumps are driven by independent internal combustion type machinery they shall be so situated that a fire in the protected space will