STATUTORY INSTRUMENTS

1998 No. 1011

The Merchant Shipping (Fire Protection: Small Ships) Regulations 1998

PART V—

FIRE PREVENTION AND FIRE APPLIANCES

GENERAL

Fire pumps

30.—(1) In every passenger ship which is required by these Regulations to be provided with fire pumps operated by power, such fire pumps (other than any emergency fire pump) shall together be capable of delivering for fire fighting purposes a quantity of water, under the conditions and at the pressure specified in regulation 31 of not less than two thirds of the quantity required to be dealt with by the bilge pumps provided in the ship in compliance with Part III of the Merchant Shipping (Passenger Ship Construction and Survey) Regulations 1984(**1**);

(2) In every ship, other than a passenger ship, which is required by these Regulations to be provided with fire pumps operated by power, such fire pumps (other than any emergency fire pump) shall together be capable of delivering for fire fighting purposes a quantity of water, under the conditions and at the pressure specified in Schedule 7 in Merchant Shipping Notice MSN 1665.

(3) In every ship which is required by these Regulations to be provided with more than one fire pump operated by power (other than any emergency pump) every such fire pump shall have a capacity of not less than 80 per cent of the total capacity of the fire pumps required by paragraph (1) divided by the number of fire pumps required by these Regulations to be provided in the ship, provided that each pump has a capacity of not less than 25 cubic metres per hour. When more fire pumps operated by power than are required by these Regulations are provided in any ship, the Secretary of State may permit the capacity of any such additional fire pumps to be less than 80 per cent.

(4) In every ship of Class II(A) any emergency fire pump shall be situated in a position aft of the ship's collision bulkhead.

Fire main, water service pipes and hydrants

31.—(1) In every ship which is required by these Regulations to be provided with fire pumps operated by power, the diameter of the fire main and of the water service pipes connecting the hydrants thereto shall be sufficient for the effective distribution of the maximum discharge required by these Regulations from—

(a) where only one pump is required by the Regulations, that pump; or

(b) where two such pumps are so required, both pumps operating simultaneously; or

(**1**) S.I.1984/1216; relevant amendment is S.I. 1992/2358.

(c) where more than two such pumps are so required, the two largest of such pumps operating simultaneously;

provided that in any ship other than a passenger ship the diameter of the fire main and of the water service pipes shall be required to be sufficient only for the discharge of 140 cubic metres of water per hour.

(2) Any fire pump required to be provided by these Regulations, when discharging the quantity of water required by paragraph (1) through adjacent fire hydrants in any part of the ship from nozzles specified in regulation 32 shall be capable of maintaining the pressures at any hydrant specified in Schedule 7 in Merchant Shipping Notice MSN 1665.

(a) (3) (a) Where any ship is required by these Regulations to be provided with appliances capable of producing two jets of water under the conditions required by these Regulations, hydrants sufficient in number shall be so positioned as to enable at least two jets of water, not emanating from the same hydrant, one of which shall be from a single length of hose, to reach any part of the ship normally accessible to the passengers or crew while the ship is being navigated, and to any store room and any part of any cargo space when empty except that in any special category space or ro-ro cargo space two jets shall reach any part of the space, each from a single length of hose. Such hydrants shall be positioned near the accesses to the protected spaces.

(b) Where any ship is required by these Regulations to be provided with appliances capable of producing one jet of water under the conditions required by these Regulations, hydrants sufficient in number shall be so positioned as to enable one jet of water from a single length of hose to reach any part of the ship normally accessible to the passengers or crew while the ship is being navigated and any store room and any part of any cargo space when empty.

(4) The fire main shall comply with the requirements set out in Schedule 7 in Merchant Shipping Notice MSN 1665.

Fire hoses, nozzles, etc.

32.—(1) Fire hoses provided in compliance with these Regulations shall not exceed 18 metres in length except that in ships having a moulded breadth of 27 metres or more, the length of fire hoses for exterior locations and for cargo spaces may exceed 18 metres but shall not exceed 27 metres in length. In the case of—

(a) **a ship constructed before 1st February 1992—**

(i) every such hose forming part of the ship's equipment before that date shall be made of closely woven flax, canvas or other suitable material; and

(ii) every other such hose shall be made of non-perishable material;

(b) **a ship constructed on or after 1st February 1992**, every such hose shall be made of non-perishable material;

and every such hose shall be provided with couplings, branch pipes, other necessary fittings and nozzles, as required by these Regulations.

(2) Every fire hose provided in compliance with these Regulations together with the tools and fittings necessary for its use, shall be kept in a conspicuous position near the hydrants or connections with which it is intended to be used. In interior locations in passenger ships, fire hoses shall be connected to the hydrants at all times. Hose diameters shall be not less than 64 millimetres if unlined or 45 millimetres if lined except that smaller diameter hoses may be provided in small ships if larger diameter hoses would be difficult to deploy.

(3) Except in partially decked ships of Classes V, VI(A) and in ships of Class XII, fire hoses provided in compliance with these Regulations shall not be used for any purpose other than for fire fighting or testing the fire appliances.

(a) (4) (a) Every ship which is required by these Regulations to be provided with fire pumps operated by power shall be provided with nozzles of 12 millimetres, 16 millimetres, 19 millimetres in diameter or as near thereto in diameter as possible. Nozzles larger in diameter may be provided if the requirements of these Regulations relating to the provision of water for fire fighting purposes are otherwise complied with.

(b) For machinery spaces and exterior locations the diameter of the nozzles shall be such as to obtain the maximum possible discharge from the minimum number of jets of water and at the pressure required by these Regulations from the smallest fire pump permitted by regulation 30(3), provided that the diameter of the nozzles shall not be required to be greater than 19 millimetres.

(c) For accommodation and service spaces the diameter of the nozzles shall not be required to be greater than 12 millimetres.

(d) Every nozzle provided in compliance with these Regulations shall be capable of producing a water-spray and a plain water jet and shall incorporate a shut-off facility.

Fixed low-expansion foam fire-extinguishing systems in machinery spaces fitted in addition to requirements of these Regulations

33.—(1) Where in any machinery space a fixed low-expansion foam fire-extinguishing system is fitted in addition to the requirements of these Regulations, such a system shall be capable of discharging through fixed discharge outlets in not more than five minutes a quantity of foam sufficient to cover to a depth of 150 millimetres the largest single area over which oil fuel is liable to spread. The system shall be capable of generating foam suitable for extinguishing oil fires. Means shall be provided for effective distribution of the foam through a permanent system of piping and control valves or cocks to suitable discharge outlets, and for the foam to be effectively directed by fixed sprayers onto other main fire hazards in the protected space. The expansion ratio of the foam shall not exceed 12 to 1.

(2) The means of control of any such system shall be readily accessible and simple to operate and shall be grouped together in as few locations as possible at positions not likely to be cut off by a fire in the protected space.

Fixed fire-extinguishing systems not required by these Regulations

34. In every ship where a fixed extinguishing system not required by these Regulations is provided, such a system shall be to the satisfaction of the Secretary of State, shall be installed outside the space or spaces protected by such a system and shall be so arranged that a fire in the space or spaces protected will not put any such system out of action.

Fire extinguishers

35.—(1) Non-portable foam, carbon dioxide and dry powder fire extinguishers provided in compliance with these Regulations shall be of approved types and designs and shall meet the requirements of Schedules 2, 3 and 4 of Merchant Shipping Notice MSN 1665.

(2) Portable fire extinguishers provided in compliance with these Regulations shall be of approved types and designs and shall meet the requirements set out in Schedule 8 of Merchant Shipping Notice MSN 1665.

(3) Every fire extinguisher provided in compliance with these Regulations shall be kept fully charged at all times.

(4) Spared charges shall be provided to the extent of at least 50 per cent for each type of fire extinguisher provided in compliance with these Regulations, except for each such fire extinguisher

which is of a type that cannot readily be recharged while the ship is at sea, an additional portable fire extinguisher of the same type, or its equivalent, shall be provided in lieu of a spare charge.

Fire buckets

36.—(1) Every fire bucket provided in compliance with these Regulations shall be painted red and shall be clearly and permanently marked with the word "FIRE". Except in open ships every such fire bucket shall be kept filled with sand or water.

(2) Except in open ships, fire buckets provided in compliance with these Regulations shall not be used for any purpose other than extinguishing fire.

Fireman's outfits

37.—(1) Every fireman's outfit carried in compliance with these Regulations shall consist of—

(a) a breathing apparatus complying with the requirements specified in Schedule 5 of Merchant Shipping Notice MSN 1665; and

(b) personal equipment comprising—

(i) a portable self-contained electric battery-operated safety lamp of an approved type capable of functioning efficiently for a period of at least three hours;

(ii) a fireman's axe;

(iii) protective clothing of material capable of protecting the skin from the heat radiating from the fire and from burns and scalding by steam; the outer surface shall be water resistant;

(iv) boots and gloves of rubber or other electrically non-conducting material; and

(v) a rigid helmet providing effective protection against impact.

(2) Firemen's outfits shall be stored in readily accessible positions which are not likely to be cut off in the event of fire.

Means for stopping machinery, shutting off oil fuel suction pipes and closing of openings

38.—(1) In every ship to which these Regulations apply means shall be provided—

(a) for stopping ventilating fans serving machinery, accommodation and cargo spaces;

(b) for closing all skylights, doorways, ventilators, annular spaces around funnels and other openings to such spaces; and

(c) to permit the release of smoke from machinery spaces.

Such means shall be capable of being operated from positions outside the said spaces and which would not be made inaccessible by a fire within such spaces.

(2) Machinery driving forced and induced draught fans, oil fuel transfer pumps, oil fuel unit pumps and other similar fuel pumps shall be fitted with remote controls situated outside the spaces in which such machinery or pumps are situated and which would not be made inaccessible by a fire within such spaces. The controls shall be capable of stopping such machinery or pumps in the event of fire in such spaces. For machinery spaces in passenger ships such controls together with the controls required in paragraph (1) shall be situated at one control position or grouped in as few positions as possible. Such controls shall have safe access from the open deck.

(3) Subject to paragraph (4), every pipe connected to any oil fuel or lubricating oil storage, settling, or daily service tank, not being a double bottom tank, which if damaged would permit discharge of the contents so as to cause a fire hazard, shall be fitted with a valve or cock which shall be secured to the tank to which it is connected and which shall be capable of being closed from a

readily accessible position outside the space in which the tank is situated, provided that in the case of any inlet pipe to such a tank, a non-return valve secured to the tank may be substituted. In the case of an oil fuel or lubricating oil deep tank situated in or adjacent to a shaft or pipe tunnel or similar space, a valve or valves (additional to the valve required to be fitted on the tank) may be fitted on the pipe line or lines outside the tunnel or tunnels or similar space to enable control to be exercised in the event of fire. Such valve if fitted in the machinery space shall be operated from a position outside the space.

(4) The valve or cock required by paragraph (3) may be dispensed with in the case of a pipe connected to a lubricating oil tank fitted in a space other than a machinery space of Category A provided that the safety of the ship is not impaired.

Availability of fire-fighting appliances

39. Fire appliances carried in any ship shall be maintained in good order and shall be kept available for immediate use at all times. All moveable fire appliances, other than firemen's outfits, carried in compliance with these Regulations shall be stowed where they will be readily accessible from the spaces in which they are intended to be used and, in particular, one of the portable fire extinguishers intended for use in any space shall be stowed near the entrance to that space.