

shall not allow the breathing circuit to be penetrated by smoke or chemical fumes likely to be encountered in service. The fabric used in the construction of any harness provided with such apparatus shall be resistant to shrinkage. Exposed metal parts of the apparatus, harness and fittings shall be of materials so far as practicable resistant to frictional sparking.

(2) The following equipment shall be provided for use with each set of breathing apparatus:

(a) a fire-proof life-and-signalling-line at least 3m longer than is required to reach from the open deck in clean air, well clear of any hatch or doorway, to any part of the accommodation, service, cargo, or machinery spaces. The line shall be made of copper or galvanised steel wire rope having a breaking strength of at least 500 kg and shall be overlaid up to at least 10mm in diameter by hemp or other covering to provide a surface which can be firmly gripped when wet;

(b) An adjustable safety belt or harness to which that line shall be capable of being securely attached and detached by the wearer by means of a snap-hook;

(c) Means for protecting the eyes and face of the wearer against smoke;

(d) Plates of suitable non-flammable material bearing a clearly legible code of signals to be used between the wearer and his attendant, one of which shall be attached to the safety belt or harness and other attached to the free end of the life-line;

(e) (For every apparatus other than a smoke helmet), a lightweight safety helmet with lining and adjustable head-band.

(3) Every breathing apparatus shall be clearly marked with the name of the maker or vendor and the year of manufacture. Operating instructions in clear and permanent lettering shall be affixed to such apparatus.

(4) Every self-contained breathing apparatus shall be provided with fully charged spare cylinders having a spare storage capacity of at least 2,400 litres of free air except that:

(a) If the ship is carrying 5 sets or more of such apparatus, the total spare storage capacity of free air shall not be required to exceed 9,600 litres; or

(b) If the ship is equipped with means for recharging the air cylinders to full pressure with air free from contamination, the spare storage-capacity of the fully charged spare cylinders of each such apparatus shall be of at least 1,200 litres of free air, and the total spare storage-capacity of free air provided in the ship shall not be required to exceed 4,800 litres.

(5) A servicing and instruction manual shall be kept with each such apparatus.

Dated at Wellington this 31st day of October 1989.

W. P. JEFFRIES, Minister of Transport.

lu16

The Shipping (Automatic Sprinkler, Fire Detection and Fire Alarm Systems) Notice 1989

Pursuant to section 235 of the Shipping and Seamen Act 1952, the Minister of Transport hereby gives the following notice.

Notice

1. Title and commencement—(1) This notice may be cited as the Shipping (Automatic Sprinkler, Fire Detection, and Fire Alarm Systems) Notice 1989.

(2) This notice shall come into force on the 1st day of November 1989.

2. Performance Standard prescribed—The Performance Standard set out in the Schedule to this notice is hereby prescribed for the purposes of the Shipping (Fire Appliances) Regulations 1989.

Schedule

Performance Standard for Automatic Sprinkler Fire Detection and Fire Alarm Systems

1. General—(1) Every automatic sprinkler, fire detection and fire alarm system shall be capable of immediate operation at all times and no action by the crew shall be necessary to set it in operation. It shall be of the wet pipe type but small exposed sections may be of the dry pipe type where in the opinion of the Chief Surveyor this is a necessary precaution. Any parts of the system which may be subjected to freezing temperatures in service shall be suitably protected against freezing. The system shall be kept charged at the necessary pressure and shall have provision for a continuous supply of water as required in this Performance Standard.

(2) (a) Each section of sprinklers shall include means for giving a visual and audible alarm signal automatically at one or more indicating units whenever any sprinkler comes into operation. Such alarm systems shall be such as to indicate if any fault occurs in the system.

(b) In passenger ships such units shall give an indication of any fire and its location in any space served by the system and shall be centralised on the navigating bridge or in the main fire control station, which shall be so manned or equipped as to ensure that any alarm from the system is immediately received by a responsible member of the crew.

(c) In cargo ships such units shall indicate in which section served by the system fire has occurred and shall be centralised on the navigating bridge and in addition, visible and audible alarms from the unit shall be placed in a position other than on the navigating bridge, so as to ensure that the indication of fire is immediately received by the crew.

2. Sprinkler—(1) Sprinklers shall be grouped into separate sections, each of which shall contain not more than 200 sprinklers. In passenger ships any section of sprinklers shall not serve more than two decks and shall not be situated in more than one main vertical zone. However, the Chief Surveyor may permit such a section of sprinklers to serve more than two decks or be situated in more than one main vertical zone, if he is satisfied that the protection of the ship against fire will not thereby be reduced.

(2) Each section of sprinklers shall be capable of being isolated by one stop valve only. The stop valve in each section shall be readily accessible and its location shall be clearly and permanently indicated. Means shall be provided to prevent the operation of the stop valves by any unauthorised person.

(3) A gauge indicating the pressure in the system shall be provided at each section stop valve and at a central station.

(4) The sprinklers shall be resistant to corrosion by marine atmosphere. In accommodation and service spaces the sprinklers shall come into operation within the temperature range from 68°C to 79°C, except that in locations such as drying rooms, where high ambient temperatures might be expected the operating temperature may be increased by not more than 30°C above the maximum deckhead temperature.

(5) A list or plan shall be displayed at each indicating unit showing the spaces covered and the location of the zone in respect of each section. Suitable instructions for testing and maintenance shall be available.

(6) Sprinklers shall be placed in an overhead position and spaced in a suitable pattern to maintain an average application rate of not less than 5 litres per square meter per minute over the nominal area covered by the sprinklers. Alternative distribution arrangements or sprinklers providing other amounts of water may be permitted providing the arrangements are not less effective.

(7) Sprinklers shall be spaced not more than 4 metres apart and not more than 2 metres from a bulkhead. They shall be placed as clear as possible of beams or other objects likely to obstruct the projections of water and in such positions that