

shall be not less than 15 metres. The number of foam applicators provided in accordance with the requirements of paragraph 5 of this Performance Standard shall be not less than four. The number and disposition of foam main outlets shall be such that foam from at least two applicators can be directed on to any part of the cargo tank deck area.

9. Valves shall be provided in the foam main, and in the fire main when this is an integral part of the deck foam system, immediately forward of any monitor position to isolate damaged sections of those mains.

10. Operation of a deck foam system at its required output shall permit the simultaneous use of the minimum required number of jets of water at the required pressure from the fire main.

Dated at Wellington this 31st day of October 1989.

W. P. JEFFRIES, Minister of Transport.
lu22

The Shipping (Fixed 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 (Fixed Fire Detection and Fire Alarm Systems) Notice 1989.

(2) This notice shall come into force on the 1st day of August 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 Fixed Fire Detection and Fire Alarm Systems

1. **General**—(1) Any required fixed fire detection and fire alarm system with manually operated call points shall be capable of immediate operation at all times.

(2) Power supplies and electric circuits necessary for operation of the system shall be monitored for loss of power or fault conditions as appropriate. Occurrence of a fault condition shall initiate a visual and audible fault signal at the control panel which shall be distinct from a fire signal.

(3) There shall be not less than two sources of power supply for the electrical equipment used in the operation of the fire detection and fire alarm system, one of which shall be an emergency source. The supply shall be provided by separate feeders reserved solely for that purpose. Such feeders shall run to an automatic change-over switch situated in or adjacent to the control panel for the fire detection system.

(4) Detectors and manually operated call points shall be grouped into sections. The activation of any detector or manually operated call point shall initiate a visual and audible fire signal at the control panel and indicating units. If the signals have not received attention within two minutes an audible alarm shall be automatically sounded throughout the crew accommodation and service spaces, control stations and machinery spaces of Category A. This alarm sounded system need not be an integral part of the detection system.

(5) The control panel shall be located on the navigating bridge or in the main fire control station.

(6) Indicating units shall denote the section in which a detector or manually operated call point has operated. At least one unit shall be so located that it is easily accessible to responsible

members of the crew at all times, when at sea or in port except when the ship is out of service. One indicating unit shall be located on the navigating bridge if the control panel is located in the main fire control station.

(7) Clear information shall be displayed on or adjacent to each indicating unit about the spaces covered and the location of the sections.

(8) No section covering more than one deck within accommodation spaces, service spaces and control stations shall be permitted except a section which covers an enclosed stairway. In order to avoid delay in identifying the source of fire, each section shall contain not more than 100 detectors and shall cover not more than 50 rooms.

(9) In passenger ships a section of detectors shall not serve spaces on both sides of the ship nor on more than one deck and neither shall it be situated in more than one main vertical zone except that the Chief Surveyor, if satisfied that the protection of the ship against fire will not thereby be reduced, may permit such a section of detectors to serve both sides of the ship and more than one deck.

(10) A section of fire detectors covering a control station, service space, accommodation space or cargo space shall not include a machinery space of Category A.

(11) Detectors shall be operated by heat, smoke or other products of combustion, flame or any combination of these factors. Detectors operated by other factors indicative of incipient fires may be accepted by the Chief Surveyor provided that they are no less sensitive than such detectors. Flame shall be used only as additional to smoke or heat detectors.

(12) Suitable instructions and space components for testing and maintenance shall be provided.

(13) The function of the detection system shall be periodically tested to the satisfaction of the Chief Surveyor by means of equipment producing hot air at the appropriate temperature, or smoke or aerosol particles having the appropriate range of density or particle size, or other phenomena associated with incipient fires to which the detector is designed to respond. All detectors shall be of a type such that they can be tested for correct operation and restored to normal surveillance without the renewal of any component.

(14) The fire detection system shall not be used for any other purpose except that closing of fire doors and similar functions may be permitted at the control panel.

2. **Installation requirements**—(1) Manually operated call points shall be installed throughout the accommodation spaces, service spaces and control stations. One manually operated call point shall be located at each exit. Manually operated call points shall be readily accessible in the corridors of each deck such that no part of the corridor is more than 20 metres from a manually operated call point.

(2) Smoke detectors shall be installed in all stairways, corridors and escape routes within accommodation spaces.

(3) Where a fixed fire detection and fire alarm system is required for the protection of spaces other than those specified in clause 2(2) of this Performance Standard at least one detector complying with clause 1(11) of this Performance Standard shall be installed in each such space.

(4) Detectors shall be located for optimum performance. Positions near beams and ventilation ducts or other positions where patterns of air flow could adversely affect performance and positions where impact or physical damage is likely shall be avoided. In general, detectors which are located in overhead positions shall be a minimum distance of 0.5 metres away from bulkheads.

(5) The maximum spacing of detectors shall be in accordance with the table below: