Title	MSC Circulars / MSC/Circ.808

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RECOMMENDATION ON PERFORMANCE STANDARDS FOR PUBLIC ADDRESS SYSTEMS ON PASSENGER SHIPS, INCLUDING CABLING

1 The Maritime Safety Committee, at its sixty-eighth session (28 May to 6 June 1997), noted that the 1995 SOLAS Conference, in adopting amendments to the 1974 SOLAS Convention concerning the safety of ro-ro passenger ships, adopted Conference resolution 7 - Development of requirements, guidelines and performance standards, whereby the Committee was requested to develop relevant requirements, guidelines and performance standards to assist in the implementation of the amendments adopted by the Conference.

2 The Committee, having considered recommendations made by the Sub-Committee on Ship Design and Equipment (DE), at its fortieth session, approved the Recommendation on performance standards for public address systems on passenger ships, including cabling, set out in the annex.

3 Member Governments are invited to bring the annexed Recommendation to the attention of those concerned and use the provisions contained therein, as appropriate, in conjunction with the relevant requirements of the 1974 SOLAS Convention, as amended.

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ANNEX

1 Application

These performance standards should apply to public address systems required by SOLAS regulation III/6.5.

2 Requirements for public address systems

2.1 The public address system should be one complete system consisting of a loudspeaker installation which enables simultaneous broadcast of messages from the navigation bridge, and at least one other location on board for use when the navigation bridge has been rendered unavailable due to the emergency, to all spaces where crew members or passengers, or both are normally present and to assembly stations (i.e. muster stations). The controls of the system on the navigation bridge should be capable of interrupting any broadcast on the system from any other location on board. It should not require any action by the addressee. It should also be possible to address crew accommodation and work spaces separately from passenger spaces.

2.2 In addition to any function provided for routine use aboard the ship, the system should have an emergency function control at each control station which:

.1 is clearly indicated as the emergency function;

.2 is protected against unauthorized use;

.3 automatically overrides any other input system or programme; and

.4 automatically overrides all volume controls and on/off controls so that the required volume for the emergency mode is achieved in all spaces.

2.3 The system should be installed with regard to acoustically marginal conditions, so that emergency announcements are clearly audible above ambient noise in all spaces where crew members or passengers or both are normally present and to assembly stations (i.e. muster stations). With the ship underway in normal conditions, the minimum sound pressure levels for broadcasting emergency announcements should be:

.1 in interior spaces 75 dB(A) and at least 20 dB(A) above the speech interference level; and

.2 in exterior spaces 80 dB(A) and at least 15 dB(A) above the speech interference level.

2.4 The system should be arranged to prevent feedback or other interference.

2.5 The system should be arranged to minimize the effect of a single failure, e.g. by the use of multiple amplifiers with segregated cable routes. The public address systems should have at least two loops of flame retardant cable which should be sufficiently separated throughout their length and have two separate and independent amplifiers.

2.6 Each loudspeaker should be individually protected against short circuits.

2.7 The public address system should be arranged to operate on the main source of electrical power, the emergency source of electrical power and transitional sources of electrical power as required by SOLAS chapter II-1.

2.8 The space containing a control unit of the public address system is a control station as defined in SOLAS chapter II-2.

3 Cabling for public address and alarm systems

3.1 Cables and wiring serving internal communications or signals should, as far as practicable, be routed clear of galleys, laundries, machinery spaces of category A and their casings and other high fire risk areas unless serving those spaces. Where practicable, all such cables should be run in such a manner so as to preclude their being rendered unserviceable by heating of the bulkheads that may be caused by a fire in an adjacent space. All areas of each fire zone should be served by at least two dedicated loops sufficiently separated throughout their length and supplied by independent amplifiers.

3.2 Equipment associated with the public address systems should meet the requirements for a vibration and electromagnetic interference in the current edition of publication 533 or publication 945 of IEC, as appropriate. Electrically powered systems should provide a minimum degree of ingress protection appropriate to the location, in accordance with IEC 92-101 standard.

3.3 Relevant sections of the Code on Alarms and Indicators should also be applied.

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