

Government Notices

Shipping and Seamen Act 1952

The Shipping (Radio Performance Standards) Notice 1989

Pursuant to section 236 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 (Radio Performance Standards) Notice 1989.

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

2. Performance standard prescribed—The performance standards set out in the Schedules to this notice are hereby prescribed for the purposes of the Shipping (Radio) Regulations 1989.

3. For the purposes of this notice, the classes of ships are as those defined in the Shipping Radio Rules 1967 and the classes of fishing boats are as those defined in the Fishing Boat Radio Rules 1971.

4. A comparison should be made between those classes as above mentioned, and those defined in the Shipping (Radio) Regulations 1989.

FIRST SCHEDULE

Radiotelegraph Installation

Part I

Main Radiotelegraph Transmitter

1. Scope of Specification—This specification covers the minimum performance of a medium-frequency radiotelegraph transmitter suitable for a main transmitter in ships compulsorily fitted for radio telegraphy and as such, may form the basis for type-testing. This specification shall be assumed to cover, in addition to the transmitter proper, all equipment necessary for its operation, but not the source of electrical energy or the aerial system with which the transmitter is associated.

2. General—(1) The transmitter shall be capable, in accordance with the requirements of this specification, of transmitting signals of Class A1 and Class A2.

(2) All parts and wiring in which the direct or alternating voltages or both (other than radio-frequency voltages) combine to give an instantaneous voltage greater than 250 volts shall be protected against accidental access, and shall be isolated automatically from all sources of electrical energy when the means of protection are removed. All parts and wiring in which the direct or alternating voltages or both (other than radio-frequency voltages) combine to give an instantaneous voltage greater than 50 volts shall be protected against accidental access.

(3) The requirements of this specification shall be met for a range of supply voltage variations of plus and minus 10 percent relative to the nominal supply voltage.

(4) Provision shall be made for protecting the transmitter from the effects of excessive current or voltage.

3. Operating Frequencies—The transmitter shall be capable of operation on 500 kHz and at least four other spot frequencies in the range 405 to 525 kHz as notified by the Secretary of Commerce.

4. Climatic and Durability Tests—The transmitter shall meet the requirements of this specification when tested under the

conditions specified in "Climatic and Durability Testing of Marine Radio Equipment" applicable to Class B Equipment.

5. Power Supply—(1) The transmitter shall be capable of being operated from the main source of electrical energy required by these rules for a radiotelegraph installation.

(2) The transmitter shall not cause the ship's mains to be earthed.

6. Range of Load Impedance—For the purpose of type-testing, the transmitter shall meet the requirements of this specification when connected to each in turn of the artificial loads having values specified in the table below, or with loads having any intermediate values:

ARTIFICIAL LOAD (ELEMENTS IN SERIES)									
C	..	..	..	pF	300	400	500	600	750
R (non-inductive)	..	..	..	ohms	3.6	2.8	2.2	2.0	1.9

7. Power of the Transmitter—(1) The power of the transmitter, both for Class A1 and Class A2 emissions, shall be defined as the mean power developed under mark conditions in any load within the range specified in clause 6 of this Part of this Schedule.

(2) The power of the transmitter shall be not less than 50 watts regardless of the power-supply variations within the limits given in clause 2 (3) of this Part of this Schedule and climatic and durability tests specified in clause 4 of this Part of this Schedule.

(3) It shall be possible to reduce the power of the transmitter, either continuously or in steps of not more than 6 dB, to a value not greater than 10 watts.

(4) When the transmitter is adjusted for full or reduced power, it shall be capable of:

(a) Transmitting continuously, without critical adjustments, telegraph signals at all speeds up to 30 bauds:

(b) Operating for a period of 15 minutes under steady marking or spacing conditions:

(c) Withstanding for a period of 15 minutes the effects of open circuited or short-circuited aerial terminals while operating. In no case shall damage be caused to any part of the transmitter.

8. Modulation—When Class A2 signals are being transmitted the following requirements shall be met:

(a) The fundamental modulation frequency shall be in the range 450 to 1350 Hz:

(b) When the output power of the transmitter exceeds 25 watts, the depth of modulation shall be between 80 and 95 percent:

(c) When the output power of the transmitter is reduced to 25 watts or less, the depth of modulation shall be between 70 and 95 percent.

9. Frequency Stability—(1) The transmitter shall conform to a frequency tolerance of plus and minus 200 parts in 10⁶ relative to nominal frequency.

(2) The transmitter shall maintain the frequency tolerance specified in subclause (1) of this clause, without adjustment, regardless of variations of the impedance of the load to which it is connected.

10. Unwanted Components in the Output Signal—(1) The output power of any spurious emission shall not exceed a level of 40 dB below the carrier power or 20mW, whichever is the less. For this purpose, the term "spurious" shall include