
STATUTORY INSTRUMENTS

1992 No. 3

The Merchant Shipping (Radio Installations) Regulations 1992

PART III

NON-GMDSS SHIP REQUIREMENTS

Interpretation

18. In this Part the following expressions shall have the following meanings—

“connected” means electrically connected;

“existing installation” means—

- (a) an installation wholly installed before 25th May 1980; and
- (b) an installation part of which was installed before the said date and the rest of which consists of parts installed in replacement of indential parts or parts which comply with the relative requirements of this Part;

“maintenance” means any activity intended to keep a radio installation in satisfactory working condition and includes tests, measurements, replacements, adjustments and repair;

“mile” means the international nautical mile of 1,852 metres;

“new installation” means any installation which is not an existing installation;

“new ship” means a ship the keel of which is laid or which is at a similar stage of construction on or after 25th May 1980;

“operating position” in relation to any equipment means the position normally occupied by a person when operating that equipment;

“radio officer” means a person holding a valid maritime radio communication general certificate, first class radiotelegraph operator’s certificate or second class radiotelegraph operator’s certificate issued in each case in accordance with the Radio Regulations who is employed in the radiotelegraph station of a ship which is provided with such a station in accordance with this Part;

“radio operator” means a person who has had experience at sea as an operator of radiotelegraph apparatus on board a fishing vessel or a ship to which this Part does not apply;

“radiotelegraph ship” means a ship, being a passenger ship or a cargo ship of 300 tons and upwards to which this Part applies, which is provided with a radiotelegraph installation in compliance with this Part;

“radiotelephone operator” means a person holding a valid appropriate certificate issued in accordance with the Radio Regulations;

“radiotelephone ship” means a cargo ship, being a ship to which this Part applies, of not less than 300 tons but less than 1,600 tons, which is provided with a radiotelephone installation in compliance with this Part;

“radiotelephone station” and “radiotelephone installation” relate to the equipment operating within the frequency band 1605—3800 kHz;

“radio watch”, in the case of radiotelegraph ships, means listening on the international distress frequencies of 500 kHz and 2182 kHz and in the case of radiotelephone ships means listening on the international distress frequency of 2182 kHz;

“silence period” means the period of 3 minutes beginning at 15 minutes and at 45 minutes past each hour, on the frequency of 500 kHz, and at each hour and at 30 minutes past each hour, on the frequency of 2182 kHz;

“VHF radiotelephone station” and “VHF radiotelephone installation” relate to the equipment operating within the frequency band 156.025—162.025 MHz.

Provision of radio installations

19.—(1) Subject to the provisions set out below, every cargo ship of 300 tons or more but less than 1,600 tons shall be provided with—

- (a) a radiotelephone installation which shall include a transmitter, receiver, radiotelephone distress frequency watch receiver or radiotelephone auto alarm, and radiotelephone alarm signal generating device, or
- (b) a radiotelegraph installation which shall include—
 - (i) a main installation comprising a main transmitter, main receiver, radiotelegraph automatic alarm signal keying device, radiotelephone distress frequency watch receiver or radiotelephone auto alarm, radiotelephone distress frequency transmitter, radiotelephone alarm signal generating device and when provided, a radiotelegraph auto alarm; and
 - (ii) a reserve installation comprising a reserve transmitter and a reserve receiver: provided that in cargo ships of less than 1,600 tons, where a radiotelegraphy installation is provided as an alternative to a radiotelephone installation, it shall not be necessary for a reserve transmitter to be provided.

(2) Subject to the provisions set out below every cargo ship of 1,600 tons or more and every passenger ship shall be provided with a radiotelegraph installation which shall include—

- (a) a main installation comprising a main transmitter, main receiver, radiotelegraph automatic alarm signal keying device, radiotelephone distress frequency watch receiver or radiotelephone auto alarm, radiotelephone distress frequency transmitter, radiotelephone alarm signal generating device and, when provided, a radiotelegraph autoalarm; and
- (b) a reserve installation comprising a reserve transmitter and reserve receiver.

(3) Every cargo ship of 300 tons or more and every passenger ship shall, in addition, be provided with a VHF radiotelephone installation which shall include a transmitter and receiver.

Interference with reception and with other installations

20.—(1) At no time while the ship is at sea shall any interference or mechanical noise produced by any radio installation required by this Part be such as to prevent the efficient operation of any other equipment installed on the ship.

(2) At no time while the ship is—

- (a) at sea; or
- (b) in port when a watch is required by the master equipment in the ship be sufficient to prevent the effective reception of radio signals by means of the radio installation.

(3) Any ship to which this Part applies in respect of which it is impracticable to erect efficient and properly installed antennas for broadcast receivers which do not interfere with the efficiency of the radio installation shall be provided with a communal antenna system for broadcast receivers.

Testing of equipment

21.—(1) In all ships to which this Part applies, a radio officer in the case of radiotelegraph ship, or a radiotelephone operator in the case of a radiotelephone ship shall, while at sea, carry out the appropriate equipment tests and battery and reserve power checks specified in Schedule 4 to these Regulations. Where more than one radio officer or more than one radiotelephone operator is carried on a ship, the Master shall designate an officer or operator as the case may be to carry out those checks and the duty shall be upon the officer or operator so designated.

(2) If any of the radio equipment required by this Part is not in working order, the radio officer or radiotelephone operator discovering the deficiency shall report that fact to the Master and record the details in the radio log.

Charging of batteries

22.—(1) If batteries are provided as a source of electrical energy for any part of the equipment required by this Part, means shall be provided on board every ship to which this Part applies, for the charging of such batteries from the ship's main source of electrical energy. The charging facilities shall be adequate to ensure that the batteries can be fully charged within a period of not more than 16 hours;

Provided that where more than one battery is provided and each has sufficient capacity to comply with regulation 33(1) or 41(3) of this Part, as the case may be, the charging facilities shall be adequate to ensure that each battery can be fully charged within a period of 16 hours but it shall not be necessary for both batteries to be charged simultaneously.

(2) Where practicable, the batteries shall be fully charged on every occasion immediately before the ship leaves port.

(3) When the ship is at sea—

(a) the batteries forming part of—

(i) the main radiotelegraph installation, radiotelephone installation or VHF radiotelephone installation, and

(ii) in the case of a radiotelegraph ship, the reserve radiotelegraph installation and

(b) the batteries forming part of—

(i) the motor life-boat fixed radio equipment and

(ii) the survival craft portable radio equipment if of a type which requires charging

(c) the batteries forming part of the survival craft two-way radiotelephone apparatus, if of a type which require charging, shall be brought up to the normal fully-charged condition whenever necessary and at least at intervals not exceeding one week.

Spare parts, tools and testing equipment

23. Sufficient spare parts, tools and testing equipment appropriate to the ship to enable the radio installation to be maintained in an efficient working condition while at sea, shall be provided.

Serviceability and maintenance of radio installation

24.—(1) Each radio installation shall be in a satisfactory working condition whenever the ship goes to sea;

Provided that where any additional radio equipment which is not required by this Part is provided, that equipment shall be of such design that any malfunction of any part of it shall not adversely affect the operation of the radio installation required by this Part.

(2) Each radio installation shall be in a satisfactory working condition at all times when the ship is at sea, unless there is a defect in the radio installation and maintenance is being carried out or is not practicable.

(3) All equipment forming part of each radio installation shall be reliable and shall be so constructed and installed that it is readily accessible for maintenance purposes.

(4) Adequate information and instructions in English as to the use and maintenance of each installation shall be provided and shall be available for use when the radio installation is being operated, tested or serviced.

(5) In all United Kingdom ships to which this Part applies there shall be available on board and, on radiotelegraph ships, in a radiotelegraph operating room—

- (a) a rigging plan of the fitted antennas showing—
 - (i) elevation and plan views of the antennas and on radiotelegraph ships their disposition on the ship relative to the radiotelegraph operating room;
 - (ii) the dimensions of transmitting antennas; and
 - (iii) the vertical distance from the load line indicating the greatest depth to which the ship may at any time or any place be submerged to the base of each radiotelegraph and radiotelephone transmitting antenna;
- (b) complete information on the wiring of the radio installation, except for existing installations on radiotelephone ships, showing all cable interconnections and terminations.

VHF radiotelephone station

25.—(1) The VHF radiotelephone installation shall be in the upper part of the ship and control of the VHF channels shall be immediately available on the bridge convenient to the place from which the ship is normally navigated.

(2) A card of instructions giving a clear summary of the distress, urgency and safety procedures shall be displayed at each VHF operating position.

(3) On United Kingdom radiotelegraph ships, means shall be provided in new installations to enable reception by the VHF radiotelephone installation to be monitored in the radio room during distress incidents.

Provision of antennas

26. Every ship to which this Part applies shall be provided with antennas suitable for the efficient radiation and reception of signals in the band 156.025—162.025 MHz. The antennas shall be vertically polarised and, so far as practicable, have an unobstructed view in all directions.

Supply of electrical energy

27.—(1) At all times while a ship to which this Part applies is at sea and at all reasonable times when she is in port, there shall be available a source of energy sufficient to operate the VHF radiotelephone installation at its nominal rated output power. If batteries are provided they shall have sufficient capacity and shall be maintained at all times while at sea in such condition as to be able to supply continuously for at least six hours a total current equal to the sum of—

- (a) the current consumption of the VHF radiotelephone receiver and;
 - (b) one fifth of the current consumption of the VHF radiotelephone transmitter.
- (2) In respect of—
- (a) new installations in all cargo ships of 300 tons and more but less than 500 tons, and

- (b) new and existing installations in all cargo ships of 500 tons or more and passenger ships, installation from an alternative source of electrical energy situated in the upper part of the ship unless the source of energy required by paragraph (1) of this regulation is situated there. The source of energy in the upper part of the ship may be the reserve source of energy required by regulation 33(2) or 41(2) of these Regulations, in which case the VHF usage of such reserve source of energy shall be limited to distress, urgency and safety communications.

(3) Where provision is made for operating the VHF radiotelephone installation from alternative sources of electrical energy, means shall be provided for rapidly changing from one source of energy to the other.

Radiotelephone operators using the VHF radiotelephone installation

28. Every radiotelephone operator using the VHF radiotelephone installation shall have practical knowledge of operating the VHF equipment and general knowledge of the Radio Regulations applying to VHF radiotelephone communications and specifically of that part of those Regulations relating to distress signals and traffic, alarm, urgency and safety signals.

VHF radio watch

29.—(1) Each ship which is fitted with a VHF radiotelephone installation in accordance with this Part shall, while at sea, maintain a continuous listening watch on the navigating bridge on 156.8 MHz (VHF Channel 16).

(2) This listening watch may be discontinued—

- (a) when the receiver is being used for traffic on a frequency other than 156.8 MHz;
- (b) when the vessel is maintaining a watch on a frequency other than 156.8 MHz for the purpose of a port operation, ship movement or safety of navigation service;
- (c) when, on the direction of the Master, the watch is being maintained elsewhere in the ship;
- (d) when, in the opinion of the Master, the watch is prejudicial to the safety of the ship.

(3) Where the listening watch is discontinued pursuant to paragraph (2)(c) or (d), entries shall be made in the ship's official log book of the times and duration for which the listening watch on the navigating bridge was discontinued and of the circumstances in which the watch was transferred elsewhere or in which the safety of the ship was prejudiced as the case may be.

(4) A written summary shall be maintained of all communications relating to distress, urgency and safety traffic received or transmitted on the VHF radiotelephone installation during the watch.

Radiotelephone station

30.—(1) The radiotelephone station shall be in the upper part of the ship and so sited that it is protected to the greatest possible extent from interference and noise which might impair the correct reception of messages and signals.

(2) There shall be an efficient means of two-way communication, independent of the ship's main communication system and the main source of electrical energy, between the place at which the radiotelephone installation is fitted and any other place from which the ship is normally navigated.

(3) A reliable clock shall be securely mounted in such a position that the entire dial can be easily observed from the radiotelephone operating position. The marking of the silence periods shall be clearly visible.

(4) A reliable emergency light shall be provided, independent of the system which supplies the normal lighting of the radiotelephone installation, and permanently arranged so as to be capable of providing adequate illumination of the operating controls of the radiotelephone installation, of

the clock required by paragraph (3) of this regulation and of the card of instructions required by paragraph (6) of this regulation. The emergency light shall be controlled by two-way switches placed respectively near an entrance to the room in which the radiotelephone installation is fitted and at the operating position in that room: provided that where the radiotelephone installation is fitted on the bridge, only the switch at the operating position need to be provided. The switches shall be clearly labelled to indicate their purpose.

(5) Where a source of energy consists of a battery or batteries, the radiotelephone station shall be provided with a means of indicating continuously whether the battery voltage is adequate to supply energy for the radiotelephone installation.

(6) A card of instructions in English giving a clear summary of the radiotelephone distress, urgency and safety procedures shall be displayed at each radiotelephone operating position.

(7) Means shall be provided at the radiotelephone station for checking the proper functioning of—

- (a) the radiotelephone alarm signal generating device, by ensuring that the device can modulate satisfactorily the radiotelephone transmitter. The radiotelephone transmitter shall not radiate signals during such checking; and
- (b) the muting circuits of the radiotelephone distress frequency watch receiver or the radiotelephone auto alarm.

Provision of antennas

31.—(1) Every radiotelephone ship to which this Part applies shall be provided and fitted with suitable antennas and insulators. Where wire antennas are suspended between supports liable to whipping, they shall be protected against breakage. In addition, every such ship shall carry—

- (a) if the radiotelephone antenna is a supported wire antenna, a spare antenna completely assembled for rapid replacement of the radiotelephone antenna; or
- (b) if the radiotelephone antenna is not a supported wire antenna, a spare antenna of similar electrical characteristics;
- (c) the necessary means to erect an antenna.

(2) A suitable antenna shall be provided for, and shall normally be connected to, the radiotelephone distress frequency watch receiver or the radiotelephone auto alarm.

Range of radiotelephone transmitter

32. The normal range of the radiotelephone transmitter provided in accordance with this Part shall not be less than 150 miles. The range of a radiotelephone transmitter for the purpose of this Part shall normally be determined by calculation of the metre-amperes. Where an antenna arrangement causes difficulties in determining the range of a transmitter by calculation, the range shall be determined by test.

Supply of electrical energy

33.—(1) At all times while a radiotelephone ship is at sea, and at all reasonable times while she is in port, there shall be available a main source of energy sufficient to operate the installation over the normal range of not less than 150 miles. If batteries are provided they shall have sufficient capacity and shall be maintained at all times while at sea in such condition as to be able to supply continuously for at least six hours a total current equal to the sum of—

- (a) the current consumption of the radiotelephone receiver and of the transmitter when it is in a condition that operation of the “press to transmit” switch will make it ready for the immediate transmission of speech;

- (b) one third of the current which may be drawn by the radiotelephone transmitter for speech transmission on the frequency at which the current consumption of the transmitter is at a maximum;
- (c) the current consumption of all additional loads to which the battery may supply energy in time of distress or emergency; and
- (d) where the source of energy is also used by the VHF radiotelephone installation, the current consumption of the VHF radiotelephone receiver and one fifth of the current consumption of the VHF radiotelephone transmitter.

(2) In respect of installations in United Kingdom cargo ships of 300 tons or more, and other cargo ships of 500 tons or more but in any case less than 1,600 tons, made on or after 19th November 1952, a reserve source of energy shall be provided in the upper part of the ship unless the main source of energy is situated there.

- (3) The reserve source of energy, if provided, may be used only to supply—
 - (a) the radiotelephone installation;
 - (b) the emergency light specified in regulation 29(4) of this Part;
 - (c) the device for generating the radiotelephone alarm signal by automatic means;
 - (d) the VHF installation;
 - (e) the direction-finder (if fitted); and
 - (f) reasonable number of low-power emergency circuits which are wholly confined to the upper part of the ship, such as emergency lighting on the boat deck. Such reasonable number of circuits shall be adequately fused and capable of being readily disconnected from the reserve source of energy.

Radiotelephone operators

34.—(1) Every radiotelephone ship which is fitted with a radiotelephone station in accordance with this Part shall carry the number of radiotelephone operators specified in paragraph (2) of this regulation. If he is the holder for the time being of a valid certificate for radiotelephony, the master, an officer or a member of the crew may be a radiotelephone operator.

- (2) The specified number of radiotelephone operators shall be—
 - (a) ships of 300 tons and more, but less than 500 tons — at least one operator;
 - (b) ships of 500 tons and more, but less than 1,600 tons — at least two operators; provided that if a ship carries one radiotelephone operator exclusively employed for duties related to radiotelephony, it shall not be necessary to carry a second radiotelephone operator.
- (3) For the purposes of these Regulations no person shall be qualified to be a radiotelephone operator on board a United Kingdom ship unless he is the holder of—
 - (a) a valid certificate of competency in radiotelephony or radiotelegraphy issued by the Secretary of State or by an authority empowered in that behalf by the laws of some part of the Commonwealth or a member State and recognised by the Secretary of State as the equivalent of such a certificate; and
 - (b) authority granted by the Secretary of State under section 7 of the Wireless Telegraphy Act 1949⁽¹⁾ to operate a radiotelegraph station or a radiotelephone station established in a ship under a licence issued by him sub-paragraph (a) issued on or after 28th April 1984 shall not be so qualified unless he is in addition the holder of a valid certificate issued by the Secretary of State or a person authorised by him stating that the holder has satisfied the additional knowledge and training requirements set out in Schedule 7 to these

(1) 1949 c. 54.

Regulations or a document recognised by the Secretary of State as the equivalent of such a certificate and issued by an authority empowered in that behalf by the laws in some part of the Commonwealth or a member State.

(4) For the purposes of this Part no person shall be deemed to be a radiotelephone operator onboard a ship registered in a country other than the United Kingdom unless he holds a valid certificate of competency in radiotelephony or radiotelegraphy issued by an authority empowered or recognised in that behalf by the law of the country in which the ship is registered and issued in accordance with the Radio Regulations.

Radio watch

35. Every radiotelephone ship which is fitted with a radiotelephone station in accordance with this Part shall, while at sea, maintain continuous watch on the radiotelephone distress frequency at the place on board from which the ship is normally navigated, by use of a radiotelephone distress frequency watch receiver or radiotelephone autoalarm.

Radio log — radiotelephone ship

36.—(1) The radio log (diary of the radio service) required by the Radio Regulations for a ship which is fitted with a radiotelephone installation in accordance with this Part shall be kept at the place where listening watch is maintained during the voyage.

(2) Every radiotelephone operator and every master, officer or crew member when carrying out a listening watch in accordance with regulation 35 of these Regulations shall enter in the radio log information specified in Schedule 5 Part A and in the form specified in Part B of Schedule 5 to these Regulations.

(3) The radiotelephone operator or, if there is more than one, the one designated by the Master, shall inspect and sign each day the entries for that day in the radio log, confirming that the requirements of this Part have been met.

(4) The Master of the ship shall inspect and sign each day's entries in the radio log.

(5) The radio logs shall be available for inspection by officers authorised by the Secretary of State to make such an inspection.

(6) Regulation 9 of the Merchant Shipping (Official Log Books) Regulations 1981(2) shall apply to the Radio Log as applies to the official log book.

Radiotelegraph station

37.—(1) The radiotelegraph installation shall be installed in such a manner that it will be protected against the harmful effects of water and extremes of temperature and shall be readily accessible both for immediate use in case of distress and for repair.

(2) Every radiotelegraph ship shall be provided with a radiotelegraph operating room. Means shall be provided to operate the main and the reserve radiotelegraph apparatus from the radiotelegraph operating room.

(3) The main and reserve radiotelegraph apparatus provided on board a radiotelegraph ship shall be electrically separate and electrically independent of each other.

(4) Calibration tables or calibration curves shall be available in the radiotelegraph operating room for each transmitter and receiver forming part of the radiotelegraph installation except for those transmitters and receivers which are directly calibrated.

(2) *S.I. 1981/569*, to which there is an amendment not relevant to these Regulations.

(5) The sleeping accommodation of at least one radio officer shall be situated as near as practicable to the radiotelegraph operating room.

Radiotelegraph operating rooms

38. Radiotelegraph operating rooms shall—

- (a) be in such positions that no interference from extraneous mechanical or other noise will be caused to the proper reception of radio signals;
- (b) be placed as high in the ship as is practicable;
- (c) be of sufficient size and of adequate ventilation to enable the main and reserve radiotelegraph installations to be operated efficiently;
- (d) not be used for any purpose which would interfere with the operation of the installation;
- (e) be provided with an efficient two-way system for calling and voice communication with the bridge and any other place from which the ship is normally navigated. Such means of communication shall be independent of the main communication system on the ship and of the ship's main source of electrical energy;
- (df) be provided with a reliable clock, the face of which shall be marked to indicate the silence periods, and with a dial of not less than 125 millimetres (5 inches) in diameter and a concentric seconds hand. It shall be securely mounted in the radiotelegraph operating room in such a position that the entire dial can be easily and accurately observed by the radio officer from the radiotelegraph operating position and from the position for testing the radiotelegraph auto alarm equipment;
- (g) be provided with a reliable emergency light consisting of an electric lamp, operated from the reserve source of electrical energy, permanently arranged so as to provide satisfactory illumination of the operating controls of the main and reserve radiotelegraph installation and of the clock required by subparagraph (f) of this regulation and controlled by two-way switches placed near the main entrance to the radiotelegraph operating room and at the radiotelegraph operating position. These switches shall be clearly labelled to indicate their purpose;
- (h) be provided with an electric inspection lamp complete with a flexible lead of adequate length and operated from the reserve source of electrical energy. A serviceable flashlight shall also be provided and kept in the radiotelegraph operating room;
- (di) be provided with a chair capable of being fixed at the radiotelegraph operating position;
- (dj) on new United Kingdom ships, be provided with alternative means of exit and be of sufficient size to enable the equipment installed in the room to be properly maintained.

Provision of antennas

39.—(1) Every radiotelegraph ship to which this Part applies shall be provided and fitted with suitable transmitting and receiving antennas and insulators. Where wire antennas are suspended between supports liable to whipping, they shall be protected against breakage.

(2) The performance of the radiotelegraph installation required by this Part shall not be adversely affected by the connection of any other equipment to the antennas.

(3) The main transmitting antenna and a reserve transmitting antenna shall be fitted, provided that the Secretary of State may exempt any ship from the provision of a reserve transmitting antenna if he is satisfied that the fitting of such an antenna is impracticable or unreasonable. Any ship so exempted shall carry—

- (a) if the main transmitting antenna is a supported wire antenna, a spare antenna completely assembled for rapid replacement of the main antenna;

- (b) if the main transmitting antenna is not a supported wire antenna, a spare antenna of similar electrical characteristics, complete with the necessary materials and other means to enable it to be rapidly erected while the ship is at sea.
- (4) Every radiotelegraph ship shall also be provided with sufficient antenna wire, insulators and other means necessary to enable a suitable transmitting antenna to be erected.
- (5) The main transmitting antenna and the reserve transmitting antenna (if any) shall where practicable, be so rigged that damage to the one will not affect the efficiency of the other.
- (6) Means shall be provided for quickly connecting—
 - (a) the main transmitting antenna and the reserve transmitting antenna (if any) to the main transmitter and, separately, to the reserve transmitter; and
 - (b) the main and reserve receivers to any antenna with which they may need to be used.
- (7) Suitable antennas shall be provided for, and shall normally be connected to, the radiotelegraph auto alarm and the radiotelephone distress frequency watch receiver or the radiotelephone auto alarm.

Range of radiotelegraph transmitter

40.—(1) The main and reserve transmitter shall, when connected to the main antenna, have a minimum normal range as specified in the Table below, that is to say, they must be capable of transmitting clearly perceptible signals from ship to ship by day and under normal conditions and circumstances over the ranges there specified—

TABLE

Minimum normal range in miles	Main transmitter	Reserve transmitter
All passenger ships, and cargo ships of 1,600 tons and upwards	150	100
Cargo ships below 1,600 tons	100	75

(2) The range of a radiotelegraph transmitter for the purposes of this Part shall normally be determined by calculation of the metre-amperes. Where an antenna arrangement causes difficulty in determining the range of a transmitter by calculation, the range shall be determined by test.

Supply of electrical energy

41.—(1) While a radiotelegraph ship is at sea and at all reasonable times when she is in port there shall be available a supply of electrical energy sufficient to operate the main installation over the normal range required by regulation 40 of these Regulations as well as for the purpose of charging any batteries forming part of the radiotelegraph installation.

(2) The reserve installation shall be provided with a source of energy independent of the propelling power of the ship and of the ship's main electrical system. Means for bringing the reserve source of energy into immediate operation shall be provided and shall be situated in a radiotelegraph operating room or, if this is not possible, close thereto, and be provided with an electric lamp for illumination.

(3) The reserve source of energy—

- (a) shall where possible consist of batteries, provided that such batteries shall not be fitted in the same space as the means for bringing the reserve source of energy into immediate operation;
 - (b) shall under all circumstances be capable of being put into operation rapidly;
 - (c) shall be of such capacity and shall be maintained at all times when at sea in such condition as to be able to supply continuously for at least six hours a total current equal to the sum of—
 - (i) one-half of the reserve transmitter current consumption with the key down (mark);
 - (ii) one-half of the reserve transmitter current consumption with the key up (space);
 - (iii) the current required to operate the reserve receiver; and
 - (iv) the current consumption of the additional circuits connected to the reserve source of energy specified in paragraphs (4) and (5) of this regulation;
 - (d) shall, where the VHF radio installation is capable of being connected to the reserve source of energy, be of sufficient capacity to operate simultaneously the reserve radiotelegraph transmitter and the VHF radio installation unless means are provided to ensure that such simultaneous operation is not possible. For the purposes of this Part, the current consumption of the VHF radio installation shall be a total current equal to the sum of the current consumption of the VHF radiotelephone receiver and one fifth of the current consumption of the VHF radiotelephone transmitter;
 - (e) shall be placed as high in the ship as is practicable and readily accessible to the radio officer.
- (4) The reserve source of energy shall be used to supply the reserve installation and the automatic alarm signal keying device if it is electrically operated and, subject to the provisions of paragraph (5) of this regulation, the reserve source of energy shall not be used other than for the purposes specified below, that is to say, to supply—
- (a) the radiotelegraph auto alarm;
 - (b) the emergency light specified in regulation 38(g) of these Regulations;
 - (c) the direction-finder;
 - (d) the VHF installation;
 - (e) the device for generating the radiotelephone alarm signal by automatic means;
 - (f) any device specified in the Radio Regulations to permit changeover from transmission to reception or from reception to transmission.
- (5) Notwithstanding the provisions of paragraph (4) of this regulation, in cargo ships the reserve source of energy may be used to provide energy for a number of low-power emergency circuits which are wholly confined to the upper part of the ship, such as emergency lighting on the boat deck, on condition that such circuits are adequately fused and can be readily disconnected and that the source of energy is of sufficient capacity to carry the additional load.

Radio officers

- 42.**—(1) Every radiotelegraph ship which is provided with a radiotelegraph auto-alarm shall, upon proceeding to sea, be provided with radio officers as follows—
- (a) two radio officers on each passenger ship carrying or certificated to carry more than 250 passengers and engaged on a voyage exceeding 16 hours' duration;
 - (b) one radio officer on all other radiotelegraph ships.
- (2) Every United Kingdom radiotelegraph ship which is not provided with a radiotelegraph auto-alarm shall, upon proceeding to sea, be provided with radio officers as follows—

- (a) three radio officers if at sea for more than 48 hours between consecutive ports;
 - (b) two radio officers if at sea for more than 12 hours but not more than 48 hours between consecutive ports;
 - (c) one radio officer if at sea for not more than 12 hours between consecutive ports.
- (3) The chief radio officer on board a United Kingdom radio telegraphship shall be a person who has had experience at sea as a radio officer for a total of not less than—
- (a) two years in the case of a United Kingdom passenger ship in respect of which there is in force a certificate to the effect that it is fit to carry more than 250 passengers;
 - (b) one year in the case of any other passenger ship; and
 - (c) six months in the case of a cargo ship.
- (4) For the purpose of this Part no person shall be qualified to be a radio officer on board a United Kingdom ship unless he is the holder of—
- (a) a valid certificate of competency issued by the Secretary of State in the form of—
 - (i) a Maritime Radiocommunication General Certificate, or
 - (ii) a First or Second Class Certificate of Competency in Radiotelegraphy; or
 - (iii) a valid Certificate of Competency granted by an authority empowered in that behalf by the laws of a Commonwealth country or a member State and recognised by the Secretary of State as the equivalent of a certificate specified in subparagraph (i) or (ii) above:

Provided that in the case of the chief radio officer on board a United Kingdom passenger ship the Certificate required undersub-paragraph (a) of this paragraph shall be either a Maritime Radiocommunication General Certificate, or a First Class Certificate of Competency in Radiotelegraphy or certificate equivalent thereto granted in accordance with subparagraph (a)(iii); and

- (b) an authority granted by the Secretary of State under section 7 of the Wireless Telegraphy Act 1949(3) to operate a wireless telegraphy station established on a United Kingdom ship under a licence issued by the Secretary of State.

Provided that the holder of a certificate specified in subparagraph (a) issued on or after 28th April 1984 shall not be so qualified unless she is in addition the holder of a valid certificate issued by the Secretary of State or a person authorised by him stating that the holder has satisfied the additional knowledge and training requirements set out in Schedule 7 to these Regulations or a document recognised by the Secretary of State as the equivalent of such a certificate and issued by an authority empowered in that behalf by the laws of some part of the Commonwealth or a member State.

- (5) For the purposes of paragraph (4) above no certificate of competency shall be deemed to be valid on any date if granted more than 2 years before that date and either—
- (a) the holder's period, or aggregate of periods, of experience on that date is less than three months, or
 - (b) the holder last had experience at a time earlier than 2 years before that date, unless he can satisfy the Secretary of State by re-examination or otherwise that he still possesses all the qualifications described in his certificate and that his experience with modern equipment is adequate.

For the purpose of this paragraph the expression "experience" means experience as the operator of radiotelegraph apparatus—

- (i) at sea, as a radio officer or a radiotelegraph operator, or

(3) 1949 c. 54.

(ii) on land, as an operator at a radiotelegraph station maintained on land by the Post Office or British Telecommunications for communication with ships.

(6) For the purposes of this Part no person shall be deemed to be a radio officer on board a ship registered outside the United Kingdom unless he holds a valid Certificate of Competency in radiotelegraphy granted by an authority empowered or recognised in that behalf by the laws of the country in which the ship is registered and issued in accordance with the Radio Regulations.

Radio watch

43.—(1) Each ship which in accordance with this Part is fitted with a radiotelegraph installation shall, while at sea, maintain continuous watch on—

- (a) the radiotelephone distress frequency at the place on board from which the ship is normally navigated by use of a radiotelephone distress frequency watch receiver; and
- (b) the radiotelegraph distress frequency by means of a radio officer using headphones or a loudspeaker:

Provided that if the ship is provided with a radiotelegraph auto alarm and the means to cause an audible warning to be given in the radiotelegraph operating room, in the radio officer's sleeping accommodation and on the bridge when the radiotelegraph auto alarm is activated by a radiotelegraph alarm signal, such watch may be kept by the radiotelegraph auto alarm—

- (i) at all times except during the working hours specified in the Radio Regulations to be maintained by the appropriate category of ship station; and
- (ii) on all occasions during the working hours specified in the Radio Regulations to be maintained by the appropriate category of ship station when the radio officer is performing other duties in accordance with the provisions of paragraph (3) of this regulation and it is impracticable to listen by headphones or loudspeaker; but the listening watch shall always be maintained during working hours by a radio officer using headphones or loudspeaker during the silence periods on the frequency of 500 kHz.

(2) Each radiotelegraph ship shall while at sea maintain the working hours specified in the Radio Regulations for ship stations—

- (a) of the first category in respect of ships not provided with a radiotelegraph auto alarm;
- (b) of the second category in respect of passenger ships provided with a radiotelegraph auto alarm and carrying or certificated to carry more than 250 passengers and engaged on a voyage exceeding 16 hours' duration between consecutive ports; or
- (c) of the third category in respect of all other radiotelegraph ships provided with a radiotelegraph auto alarm.

(a) (3) (a) During the period when a radio officer is required by this regulation to listen on the radiotelegraph distress frequency, the radio officer may discontinue such listening during the time when he is handling traffic on other frequencies or performing other essential radio duties, but only if it is impracticable to listen by split headphones or loudspeaker. The term “essential radio duties” in this paragraph includes urgent repairs of—

- (i) equipment for radiocommunication used for safety;
- (ii) radio navigational equipment by order of the Master.

(b) In addition to the provisions of sub-paragraph (a) of the paragraph, on ships other than multi-radio officer passenger ships, the radio officer may, in exceptional cases, that is to say, when it is impracticable to listen by split headphones or loudspeaker, discontinue listening by order of the Master in order to carry out maintenance required to prevent imminent malfunction of—

equipment for radiocommunication used for safety;
radio navigational equipment;
other electronic navigational equipment including its repair:

Provided that—

- (i) the radio officer is appropriately qualified to perform these duties; and
- (ii) the ship is fitted with a receiving selector which complies with the requirements of the Radio Regulations.

(4) In all ships fitted with a radiotelephone auto alarm, that alarm shall, while the ship is at sea, be in operation whenever there is no listening watch being kept on the radiotelegraph distress frequency by a radio officer using headphones or a loudspeaker.

Radio log — radiotelegraph ship

44.—(1) The radio log required by the Radio Regulations for a ship which is fitted with a radiotelegraph station in accordance with this Part shall be kept in the radiotelegraph operating room during the voyage.

(2) Every radio officer on board such a ship shall, when on duty, enter in the radio log the information specified in Schedule 6 Part A in the form specified in Schedule 6 Part B to these Regulations.

(3) The radio officer, or if there is more than one, the chief radio officer, shall inspect and sign each day the entries for that day in the radio log confirming that the requirements of this Part have been met.

(4) The Master of the ship shall inspect and sign each day's entries in the radio log.

(5) The radio log shall be available for inspection by officers authorised by the Secretary of State to make such an inspection.

(6) Regulations made under section 68 of the Merchant Shipping Act 1970⁽⁴⁾ (requiring production of the official log book to the Registrar General of Shipping and Seamen, a superintendent, a proper officer or an officer of customs and excise and delivery of the official log book to the appropriate superintendent or proper officer) shall apply to the radio log as they apply to the official log book.

Radio equipment for lifeboats and survival craft

45.—(1) The motor life-boat fixed radiotelegraph installation, the portable radio equipment for survival craft, the two-way radiotelephone apparatus for survival craft and the survival craft emergency position-indicating radio beacons required to be provided in pursuance of regulations as to life-saving appliances made under section 21 of the Merchant Shipping Act 1979⁽⁵⁾ shall comply with the appropriate performance specifications and shall be tested in accordance with regulation 21(1), 22(3)(b) and 22(3)(c) of these Regulations.

(2) The battery included in motor life-boat fixed radio equipment shall not be used for any purpose other than the operation of such equipment and the searchlight provided in compliance with the Regulations as to life-saving appliances.

(4) 1970 c. 36.

(5) 1979 c. 39.