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terminals of the radiotelephone installation must not deviate from its rated potential by more than 10 percent on vessels completed on or after March 1, 1957, nor by more than 15 percent on vessels completed before that date.

- (b) When the main power supply consists of batteries, they must be installed as high above the bilge as practicable, secured against shifting with motion of the vessel, and accessible with not less than 26 cm (10 in.) head room
- (c) Means must be provided for adequately charging any batteries used as a main power supply. There must be a device which gives a continuous indication of the rate and polarity of the charging current during charging.

[51 FR 31213, Sept. 2, 1986, as amended at 58 FR 44953, Aug. 25, 1993]

#### § 80.917 Reserve power supply.

- (a) Any small passenger vessel the keel of which was laid after March 1, 1957, must have a reserve power supply located on the same deck as the main wheel house or at least one deck above the vessel's main deck, unless the main power supply is so situated, if—
- (1) The vessel is of more than 100 gross tons; or
  - (2) Beginning March 25, 2009:
- (i) The vessel carries more than 150 passengers or has overnight accommodations for more than 49 persons; or
- (ii) The vessel operates on the high seas or more than three miles from shore on Great Lakes voyages.
- (b) The reserve power supply must be independent of the ship's propulsion and of any other electrical system, and be sufficient to simulataneously energize the radiotelephone transmitter at its required output power, and the receiver. The reserve power supply must be available for use at all times.
- (c) When the reserve power supply consists of batteries, they must be installed as high above the bilge as practicable, secured against shifting with motion of the vessel, and accessible with not less than 26 cm (10 in.) head room.
- (d) The reserve power supply must be located as near the required transmitter and receiver as practicable.
- (e) All reserve power supply circuits must be protected from overloads.

- (f) Means must be provided for charging any storage batteries used as a reserve power supply for the required radiotelephone installation. There must be a device which will give continuous indication of the rate and polarity of the charging current during charging.
- (g) The cooling system of each internal combustion engine used as a part of the reserve power supply must be adequately treated to prevent freezing or overheating consistent with the season and route to be travelled by the particular vessel involved.
- (h) Beginning January 2, 2013, any small passenger vessel that does not carry a reserve power supply must carry at least one VHF handheld radiotelephone.

[51 FR 31213, Sept. 2, 1986, as amended at 58 FR 44954, Aug. 25, 1993; 73 FR 4488, Jan. 25, 2008; 76 FR 67616, Nov. 2, 2011]

## §80.919 Required capacity.

If either the main or reserve power supply includes batteries, these batteries must have sufficient reserve capacity to permit proper operation of the required transmitter and receiver for at least 3 hours under normal working conditions.

#### §80.921 Proof of capacity.

- (a) When directed by a representative of the Commission the vessel must prove by demonstration as prescribed in paragraphs (b), (c), (d) and (e) of this section, that the requirements of §80.919 are met.
- (b) Proof of the ability of a storage battery used as a main or reserve power supply to operate over the 3-hour period established by a discharge test over the prescribed period of time, when supplying power at the voltage required for an electrical loss as prescribed by paragraph (d) of this section.
- (c) When the required power supply consists of an engine-driven generator, proof of the adequacy of the engine fuel supply to operate the unit over the 3-hour period of time may be established by using as a basis the fuel consumption during a 1 hour period when supplying power, at the voltage required for operating an electrical load as prescribed by paragraph (d) of this section.

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- (d) In determining the required electrical load the following formula must be used:
- (1) One-half of the current of the required transmitter at its rated output power; plus
- (2) Current of the required receiver; plus
- (3) Current of electric light, if required by §80.925; plus
- (4) The sum of the current of all other loads the reserve power supply may provide in time of emergency.
- (e) At the conclusion of the test specified in paragraphs (b) and (c) of this section, no part of the main or reserve power supply must have an excessive temperature rise, nor must the specific gravity or voltage of any storage battery be below the 90 percent discharge point.

### §80.923 Antenna system.

An antenna must be provided in accordance with the applicable requirements of §80.81 of this part which is as efficient as practicable for the transmission and reception of radio waves. The construction and installation of this antenna must insure proper emergency operation.

 $[51~{\rm FR}~31213,~{\rm Sept.}~2,~1986,~{\rm as}~{\rm amended}~{\rm at}~56~{\rm FR}~19302,~{\rm Apr.}~26,~1991]$ 

### §80.925 Electric light.

- (a) If the vessel is navigated at night an electric light or dial lights which clearly illuminate the operating controls must be installed to provide illumination of the operating controls at the principal operating position.
- (b) The electric light must be energized from the main power supply and, if a reserve power supply for the radiotelephone installation is required, from the reserve power supply.

# §80.927 Antenna radio frequency indicator.

The transmitter must be equipped with a device which provides visual indication whenever the transmitter is supplying power to the antenna.

## §80.929 Nameplate.

A durable nameplate must be mounted on the required radiotelephone equipment. When the transmitter and receiver comprise a single unit, one

nameplate is sufficient. The nameplate must show the name of the manufacturer and the type or model number.

# § 80.931 Test of radiotelephone installation.

Unless normal use of the radiotelephone installation demonstrates that the equipment is in proper operating condition, a test communication on a required frequency in the 1605 to 27500 kHz band or the 156 to 162 MHz band must be made by a qualified operator each day the vessel is navigated. If the equipment is not in proper operating condition, the master must be promptly notified.

[51 FR 31213, Sept. 2, 1986, as amended at 56 FR 19302, Apr. 26, 1991]

# §80.933 General small passenger vessel exemptions.

- (a) Subject U.S. vessels less than 50 gross tons which are navigated not more than 300 meters (1,000 feet) from the nearest land at mean low tide are exempt from the provisions of title III, part III of the Communications Act.
- (b) All U.S. passenger vessels of less than 100 gross tons, not subject to the radio provisions of the Safety Convention, are exempt from the radiotelegraph provisions of Part II of Title III of the Communications Act, provided that the vessels are equipped with a radiotelephone installation fully complying with subpart S of this part.
- (c) These exemptions may be terminated at any time without hearing, if in the Commission's discretion, the need for such action arises.
- [51 FR 31213, Sept. 2, 1986, as amended at 58 FR 44954, Aug. 25, 1993; 60 FR 58245, Nov. 27, 1995; 68 FR 46974, Aug. 7, 2003; 73 FR 4488, Jan. 25, 2008]

# § 80.935 Station clock.

Each station subject to this subpart must have a working clock or timepiece readily available to the operator.