

power of the ship and the ship's electrical system.

(d) Where, in addition to the VHF radio installation, two or more of the other radio installations, referred to in paragraph (b) of this section, can be connected to the reserve sources of energy, they must be capable of simultaneously supplying, for one hour, as specified in paragraph (b) of this section, the VHF radio installation and;

(1) All other radio installations which can be connected to the reserve sources of energy at the same time; or

(2) Whichever of the other radio installations will consume the most power, if only one of the other radio installations can be connected to the reserve sources of energy at the same time as the VHF radio installation.

(e) The reserve sources of energy may be used to supply the electrical lighting required by § 80.1083(b)(4).

(f) Where a reserve source of energy consists of a rechargeable accumulator battery or batteries:

(1) A means of automatically charging such batteries must be provided which must be capable of recharging them to minimum capacity requirements within 10 hours; and

(2) Battery charge levels should be checked at intervals of 30 days or less with equipment turned ON and the battery charger turned OFF. Portable equipment with primary batteries such as EPIRBs and SARTs should be checked at the same intervals using methods recommended by the manufacturer. The results of battery checks should be recorded in the radio log.

(g) The accumulator batteries which provide a reserve source of energy must be installed to ensure: The highest degree of service, a reasonable lifetime, reasonable safety; that the battery temperatures remain within the manufacturer's specifications whether under charge or idle; and that when fully charged, the batteries will provide at least the minimum required hours of operation under all weather conditions.

(h) If an uninterrupted input of information from the ship's navigational or other equipment to a radio installation required by this subpart (including the navigational receiver referred to in SOLAS Chapter IV, Regulation 18) is needed to ensure its proper perform-

ance, means must be provided to ensure the continuous supply of such information in the event of failure of the ship's main or emergency source of electrical power.

(i) An uninterruptible power supply or other means of ensuring a continuous supply of electrical power, within equipment tolerances, shall be provided to all GMDSS equipment that could be affected by normal variations and interruptions of ship's power.

[57 FR 9065, Mar. 16, 1992, as amended at 68 FR 46977, Aug. 7, 2003]

§ 80.1101 Performance standards.

(a) The abbreviations used in this section are as follows:

(1) International Maritime Organization (IMO).

(2) International Telecommunication Union—Telecommunication Standardization Bureau (ITU-T) (Standards formerly designated as CCITT are now designated as ITU-T.)

(3) International Electrotechnical Commission (IEC).

(4) International Organization for Standardization (ISO).

(5) International Telecommunication Union—Radiocommunication Bureau (ITU-R) (Standards formerly designated as CCIR are now designated as ITU-R.)

(b) All equipment specified in this subpart must meet the general requirements for shipboard equipment in conformity with performance specifications listed in this paragraph, which are incorporated by reference. (See § 80.7).

(1) IMO Resolution A.694(17), as revised by IMO Resolution MSC.149(77)

(2) ITU-T E.161.

(3) ITU-T E.164.1.

(4) IEC 60092-101.

(5) IEC 60533.

(6) IEC 60945.

(7) ISO Standard 3791.

(c) The equipment specified in this subpart must also conform to the appropriate performance standards listed in paragraphs (c)(1) through (12) of this section, which are incorporated by reference (see § 80.7), and must be tested in accordance with the applicable IEC testing standards listed in paragraph (c)(13) of this section, which are also incorporated by reference. (See § 80.7).

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- (1) NAVTEX receivers:
 - (i) IMO Resolution A.525(13), as revised by IMO Maritime Safety Committee (MSC) Resolution MSC.148(77).
 - (ii) ITU-R M.540-2.
- (2) VHF radio equipment:
 - (i) IMO Resolution A.803(19), as amended by IMO Resolution MSC.68(68).
 - (ii) ITU-R M.493-13.
 - (iii) ITU-R M.541-9.
- (3) MF radio equipment:
 - (i) IMO Resolution A.804(19), as amended by IMO Resolution MSC.68(68).
 - (ii) ITU-R M.493-13.
 - (iii) ITU-R M.541-9.
- (4) MF/HF radio equipment:
 - (i) IMO Resolution A.806(19), as amended by IMO Resolution MSC.68(68).
 - (ii) ITU-R M.493-13.
 - (iii) ITU-R M.541-9.
 - (iv) IMO Resolution A.700(17).
 - (5) 406.0–406.1 MHz EPIRBs:
 - (i) IMO Resolution A.810(19), as amended by IMO Resolution MSC.56(66) and IMO Resolution MSC.120(74).
 - (ii) IMO Resolution A.662(16).
 - (iii) ITU-R M.633-3.
 - (iv) The 406.0–406.1 MHz EPIRBs must also comply with § 80.1061.
 - (6) 9 GHz radar transponders:
 - (i) IMO Resolution A.802(19), as amended by IMO Resolution MSC.247(83).
 - (ii) ITU-R M.628-4.
 - (7) Two-Way VHF radiotelephone:
 - (i) IMO Resolution A.809(19), as revised by IMO Resolution MSC.149(77).
 - (ii) IMO Resolution MSC.80(70).
 - (8) INMARSAT Ship Earth Station Capable of Two-Way Communications: IMO Resolution A.808(19).
 - (9) INMARSAT-C SES: IMO Resolution A.807(19), as amended by IMO Resolution MSC.68(68).
 - (10) INMARSAT EGC: IMO Resolution A.664(16).
 - (11) Shipboard radar:
 - (i) IEC 60945.
 - (ii) IEC 62388 Edition 1.0 (2007–12).
 - (iii) IMO Resolution A.694(17).
 - (iv) IMO Resolution MSC.191(79).
 - (v) IMO Resolution MSC.192(79).
 - (vi) ITU-R M.1177-3.
 - (12) Automatic Identification Systems (AIS):
 - (i) ITU-R M.1371-3.

- (ii) IMO Resolution MSC.74(69).
- (iii) IEC 61162-1.
- (iv) IEC 61993-2.
- (13) Standards for testing GMDSS equipment:
 - (i) IEC 61097-1.
 - (ii) IEC 61097-3.
 - (iii) IEC 61097-4.
 - (iv) IEC 61097-6.
 - (v) IEC 61097-7.
 - (vi) IEC 61097-8.
 - (vii) IEC 61097-9.
 - (viii) IEC 61097-10.
 - (ix) IEC 61097-12.
 - (x) IEC 61097-13.

[68 FR 46977, Aug. 7, 2003, as amended at 69 FR 64680, Nov. 8, 2004; 73 FR 4490, Jan. 25, 2008; 74 FR 5125, Jan. 29, 2009; 76 FR 67617, Nov. 2, 2011]

§ 80.1103 Equipment authorization.

(a) All equipment specified in § 80.1101 must be certificated in accordance with 47 CFR part 2 specifically for GMDSS use, except for equipment used in the INMARSAT space segment which must be type-approved by INMARSAT and verified in accordance with 47 CFR part 2 specifically for GMDSS use. The technical parameters of the equipment must conform to the performance standards as specified in § 80.1101. For emergency position-indicating radiobeacons operating on 406.0–406.1 MHz (406.0–406.1 MHz EPIRBs) that were authorized prior to April 15, 1992, and meet the requirements of § 80.1101, the manufacturer may attest by letter that the equipment (indicate FCC ID#) meets the requirements of § 80.1101 and request that it be denoted as approved for GMDSS use.

(b) Applicants for certification must submit with their applications measurement data sufficiently complete to ensure compliance with the technical parameters. The application must include the items listed in 47 CFR 2.1033. Additional measurement data or information may be requested depending upon the equipment. For items not listed in § 2.1033 of this chapter, the applicant must attest that the equipment complies with performance standards as specified in § 80.1101 and, where applicable, that measurements have been made that demonstrate the necessary compliance. Submission of representative data demonstrating compliance is