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47 CFR Ch. I (10–1–23 Edition)

(f) Radio frequency devices operating under the provisions of this part are subject to the radio frequency radiation exposure requirements specified in §§ 1.1307(b), 1.1310, 2.1091, and 2.1093 of this chapter, as appropriate. Applications for equipment authorization of RF sources under this section must contain a statement confirming compliance with these requirements. Technical information showing the basis for this statement must be submitted to the Commission upon request.

[63 FR 36599, July 7, 1998, as amended at 63 FR 42278, Aug. 7, 1998; 64 FR 22561, Apr. 27, 1999; 67 FR 42734, June 25, 2002; 68 FR 54175, Sept. 16, 2003; 68 FR 68545, Dec. 9, 2003; 69 FR 5709, Feb. 6, 2004; 70 FR 23039, May 4, 2005; 77 FR 41928, July 17, 2012; 78 FR 59850, Sept. 30, 2013; 79 FR 24578, May 1, 2014; 79 FR 32410, June 4, 2014; 79 FR 48536, Aug. 15, 2014; 79 FR 71325, Dec. 2, 2014; 80 FR 33446, June 12, 2015; 81 FR 66832, Sept. 29, 2016; 83 FR 30367, June 28, 2018; 85 FR 18146, Apr. 1, 2020; 86 FR 23625, May 4, 2021; 88 FR 7624, Feb. 6, 2023]

§ 2.1035 [Reserved]

§ 2.1041 Measurement procedure.

(a) For equipment operating under parts 15 and 18, the measurement procedures are specified in the rules governing the particular device for which certification is requested.

(b) For equipment operating in the authorized radio services, measurements are required as specified in §§ 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055 and 2.1057. The measurement procedures in ANSI C63.26–2015 (incorporated by reference, see § 2.910) are acceptable for performing compliance measurements for equipment types covered by the measurement standard. See also § 2.947 for acceptable measurement procedures.

[82 FR 50829, Nov. 2, 2017]

§ 2.1043 Changes in certificated equipment.

(a) Except as provided in paragraph (b)(3) of this section, changes to the basic frequency determining and stabilizing circuitry (including clock or data rates), frequency multiplication stages, basic modulator circuit or maximum power or field strength ratings shall not be performed without application for and authorization of a new grant of certification. Variations in

electrical or mechanical construction, other than these indicated items, are permitted provided the variations either do not affect the characteristics required to be reported to the Commission or the variations are made in compliance with the other provisions of this section. Changes to the software installed in a transmitter that do not affect the radio frequency emissions do not require any additional filings and may be made by parties other than the holder of the grant of certification.

(b) Three classes of permissive changes may be made in certificated equipment without requiring a new application for and grant of certification. None of the classes of changes shall result in a change in identification.

(1) A Class I permissive change includes those modifications in the equipment which do not degrade the characteristics reported by the manufacturer and accepted by the Commission when certification is granted. No filing is required for a Class I permissive change.

(2) A Class II permissive change includes those modifications which degrade the performance characteristics as reported to the Commission at the time of the initial certification. Such degraded performance must still meet the minimum requirements of the applicable rules.

(i) When a Class II permissive change is made by the grantee, the grantee shall provide:

(A) Complete information and the results of tests of the characteristics affected by such change;

(B) A written and signed certification expressly stating that, as of the filing date, the equipment subject to the permissive change is not prohibited from receiving an equipment authorization pursuant to § 2.903;

(C) An affirmative or negative statement as to whether the applicant is identified on the Covered List, established pursuant to § 1.50002 of this chapter, as an entity producing covered communications equipment;

(D) The full name, mailing address and physical address (if different from mailing address), email address, and telephone number of the grantee's designated agent for service of process in

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the United States for matters relating to the authorized equipment; and

(E) The written and signed certifications required by § 2.911(d)(7).

(ii) The modified equipment shall not be marketed under the existing grant of certification prior to acknowledgement that the change is acceptable.

(3) A Class III permissive change includes modifications to the software of a software defined radio transmitter that change the frequency range, modulation type or maximum output power (either radiated or conducted) outside the parameters previously approved, or that change the circumstances under which the transmitter operates in accordance with Commission rules.

(i) When a Class III permissive change is made, the grantee shall provide:

(A) A description of the changes and test results showing that the equipment complies with the applicable rules with the new software loaded, including compliance with the applicable RF exposure requirements.

(B) A written and signed certification expressly stating that, as of the date of the filing, the equipment subject to the permissive change is not prohibited from receiving an equipment authorization pursuant to § 2.903;

(C) An affirmative or negative statement as to whether the applicant is identified on the Covered List, established pursuant to § 1.50002 of this chapter, as an entity producing covered communications equipment;

(D) The full name, mailing address and physical address (if different from mailing address), email address, and telephone number of the grantee's designated agent for service of process in the United States for matters relating to the authorized equipment; and

(E) The written and signed certifications required by § 2.911(d)(7).

(ii) The modified software shall not be loaded into the equipment, and the equipment shall not be marketed with the modified software under the existing grant of certification, prior to acknowledgement that the change is acceptable.

(iii) Class III changes are permitted only for equipment in which no Class II changes have been made from the originally approved device.

NOTE TO PARAGRAPH (b)(3): Any software change that degrades spurious and out-of-band emissions previously reported at the time of initial certification would be considered a change in frequency or modulation and would require a Class III permissive change or new equipment authorization application.

(4) Class I and Class II permissive changes may only be made by the holder of the grant of certification, except as specified.

(c) A grantee desiring to make a change other than a permissive change shall file a new application for certification accompanied by the required information as specified in this part and shall not market the modified device until the grant of certification has been issued. The grantee shall attach a description of the change(s) to be made and a statement indicating whether the change(s) will be made in all units (including previous production) or will be made only in those units produced after the change is authorized.

(d) A modification which results in a change in the identification of a device with or without change in circuitry requires a new application for, and grant of certification. If the changes affect the characteristics required to be reported, a complete application shall be filed. If the characteristics required to be reported are not changed the abbreviated procedure of § 2.933 may be used.

(e) Equipment that has been certified or formerly type accepted for use in the Amateur Radio Service pursuant to the requirements of part 97 of this chapter may be modified without regard to the conditions specified in paragraph (b) of this section, provided the following conditions are met:

(1) Any person performing such modifications on equipment used under part 97 of this chapter must possess a valid amateur radio operator license of the class required for the use of the equipment being modified.

(2) Modifications made pursuant to this paragraph are limited to equipment used at licensed amateur radio stations.

(3) Modifications specified or performed by equipment manufacturers or suppliers must be in accordance with the requirements set forth in paragraph (b) of this section.

(4) Modifications specified or performed by licensees in the Amateur Radio Service on equipment other than that at specific licensed amateur radio stations must be in accordance with the requirements set forth in paragraph (b) of this section.

(5) The station licensee shall be responsible for ensuring that modified equipment used at his station will comply with the applicable technical standards in part 97 of this chapter.

(f) For equipment other than that operating under parts 15 or 18 of this chapter, when a Class II permissive change is made by other than the grantee of certification, the information and data specified in paragraph (b)(2) of this section shall be supplied by the person making the change. The modified equipment shall not be operated under an authorization prior to acknowledgement that the change is acceptable.

(g) The interconnection of a certificated or formerly type accepted AM broadcast stereophonic exciter-generator with a certificated or formerly type accepted AM broadcast transmitter in accordance with the manufacturer's instructions and upon completion of measurements showing that the modified transmitter meets the emission limitation requirements of § 73.44 is defined as a Class I permissive change for compliance with this section.

(h) The interconnection of a multiplexing exciter with a certificated or formerly type accepted AM broadcast transmitter in accordance with the manufacturer's instructions without electrical or mechanical modification of the transmitter circuits and completion of equipment performance measurements showing the transmitter meets the minimum performance requirements applicable thereto is defined as a Class I permissive change for compliance with this section.

(i) The addition of TV broadcast subcarrier generators to a certificated or formerly type accepted TV broadcast transmitter or the addition of FM broadcast subcarrier generators to a type accepted FM broadcast transmitter, provided the transmitter exciter is designed for subcarrier operation without mechanical or electrical

alterations to the exciter or other transmitter circuits.

(j) The addition of TV broadcast stereophonic generators to a certificated or formerly type accepted TV broadcast transmitter or the addition of FM broadcast stereophonic generators to a certificated or formerly type accepted FM broadcast transmitter, provided the transmitter exciter is designed for stereophonic sound operation without mechanical or electrical alterations to the exciter or other transmitter circuits.

(k) The addition of subscription TV encoding equipment for which the FCC has granted advance approval under the provisions of § 2.1400 in subpart M and § 73.644(c) of part 73 to a certificated or formerly type accepted transmitter is considered a Class I permissive change.

(l) Notwithstanding the provisions of this section, broadcast licensees or permittees are permitted to modify certificated or formerly type accepted equipment pursuant to § 73.1690 of the FCC's rules.

[63 FR 36600, July 7, 1998, as amended at 66 FR 50840, Oct. 5, 2001; 70 FR 23040, May 4, 2005; 80 FR 33446, June 12, 2015; 88 FR 7625, Feb. 6, 2023]

§ 2.1046 Measurements required: RF power output.

(a) For transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in § 2.1033(c)(8). The electrical characteristics of the radio frequency load attached to the output terminals when this test is made shall be stated.

(b) For single sideband, independent sideband, and single channel, controlled carrier radiotelephone transmitters the procedure specified in paragraph (a) of this section shall be employed and, in addition, the transmitter shall be modulated during the test as follows. In all tests, the input level of the modulating signal shall be such as to develop rated peak envelope