

§97.317 Standards for certification of external RF power amplifiers.

(a) To receive a grant of certification, the amplifier must satisfy the spurious emission standards of §97.307(d) or (e) of this part, as applicable, when the amplifier is:

- (1) Operated at its full output power;
- (2) Placed in the “standby” or “off” positions, but still connected to the transmitter; and
- (3) Driven with at least 50 W mean RF input power (unless higher drive level is specified.)

(b) To receive a grant of certification, the amplifier must not be capable of operation on any frequency or frequencies between 24 MHz and 35 MHz. The amplifier will be deemed incapable of such operation if it:

- (1) Exhibits no more than 6 dB gain between 24 MHz and 26 MHz and between 28 MHz and 35 MHz. (This gain will be determined by the ratio of the input RF driving signal (mean power measurement) to the mean RF output power of the amplifier); and
- (2) Exhibits no amplification (0 dB gain) between 26 MHz and 28 MHz.

(c) Certification may be denied when denial would prevent the use of these amplifiers in services other than the amateur service. The following features will result in dismissal or denial of an application for certification:

- (1) Any accessible wiring which, when altered, would permit operation of the amplifier in a manner contrary to the FCC Rules;
- (2) Circuit boards or similar circuitry to facilitate the addition of components to change the amplifier’s operating characteristics in a manner contrary to the FCC Rules;
- (3) Instructions for operation or modification of the amplifier in a manner contrary to FCC Rules;
- (4) Any internal or external controls or adjustments to facilitate operation of the amplifier in a manner contrary to the FCC Rules;
- (5) Any internal RF sensing circuitry or any external switch, the purpose of which is to place the amplifier in the transmit mode;
- (6) The incorporation of more gain in the amplifier than is necessary to operate in the amateur service; for pur-

poses of this paragraph, the amplifier must:

- (i) Not be capable of achieving designed output power when driven with less than 50 W mean RF input power;
- (ii) Not be capable of amplifying the input RF driving signal by more than 15 dB, unless the amplifier has a designed transmitter power of less than 1.5 kW (in such a case, gain must be reduced by the same number of dB as the transmitter power relationship to 1.5 kW; This gain limitation is determined by the ratio of the input RF driving signal to the RF output power of the amplifier where both signals are expressed in peak envelope power or mean power);
- (iii) Not exhibit more gain than permitted by paragraph (c)(6)(i) of this section when driven by an RF input signal of less than 50 W mean power; and
- (iv) Be capable of sustained operation at its designed power level;
- (7) Any attenuation in the input of the amplifier which, when removed or modified, would permit the amplifier to function at its designed transmitter power when driven by an RF frequency input signal of less than 50 W mean power; or
- (8) Any other features designed to facilitate operation in a telecommunication service other than the Amateur Radio Services, such as the Citizens Band (CB) Radio Service.

[54 FR 25857, June 20, 1989, as amended at 63 FR 36611, July 7, 1998]

Subpart E—Providing Emergency Communications

§97.401 Operation during a disaster.

- (a) When normal communication systems are overloaded, damaged or disrupted because a disaster has occurred, or is likely to occur, in an area where the amateur service is regulated by the FCC, an amateur station may make transmissions necessary to meet essential communication needs and facilitate relief actions.
- (b) When a disaster disrupts normal communication systems in a particular area, the FCC may declare a temporary state of communication emergency.

The declaration will set forth any special conditions and special rules to be observed by stations during the communication emergency. A request for a declaration of a temporary state of emergency should be directed to the EIC in the area concerned.

(c) A station in, or within 92.6 km of, Alaska may transmit emissions J3E and R3E on the channel at 5.1675 Mhz for emergency communications. The channel must be shared with stations licensed in the Alaska-private fixed service. The transmitter power must not exceed 150 W.

[≤54 FR 25857, June 20, 1989, as amended at 68 FR 25542, May 13, 2003]

§ 97.403 Safety of life and protection of property.

No provision of these rules prevents the use by an amateur station of any means of radiocommunication at its disposal to provide essential communication needs in connection with the immediate safety of human life and immediate protection of property when normal communication systems are not available.

§ 97.405 Station in distress.

(a) No provision of these rules prevents the use by an amateur station in distress of any means at its disposal to attract attention, make known its condition and location, and obtain assistance.

(b) No provision of these rules prevents the use by a station, in the exceptional circumstances described in paragraph (a) of this section, of any means of radiocommunications at its disposal to assist a station in distress.

§ 97.407 Radio amateur civil emergency service.

(a) No station may transmit in RACES unless it is an FCC-licensed primary, club, or military recreation station and it is certified by a civil defense organization as registered with that organization, or it is an FCC-licensed RACES station. No person may be the control operator of a RACES station, or may be the control operator of an amateur station transmitting in RACES unless that person holds a FCC-issued amateur operator license and is

certified by a civil defense organization as enrolled in that organization.

(b) The frequency bands and segments and emissions authorized to the control operator are available to stations transmitting communications in RACES on a shared basis with the amateur service. In the event of an emergency which necessitates the invoking of the President's War Emergency Powers under the provisions of Section 706 of the Communications Act of 1934, as amended, 47 U.S.C. 606, RACES stations and amateur stations participating in RACES may only transmit on the following frequency segments:

(1) The 1800–1825 kHz, 1975–2000 kHz, 3.50–3.55 MHz, 3.93–3.98 MHz, 3.984–4.000 MHz, 7.079–7.125 MHz, 7.245–7.255 MHz, 10.10–10.15 MHz, 14.047–14.053 MHz, 14.22–14.23 MHz, 14.331–14.350 MHz, 21.047–21.053 MHz, 21.228–21.267 MHz, 28.55–28.75 MHz, 29.237–29.273 MHz, 29.45–29.65 MHz, 50.35–50.75 MHz, 52–54 MHz, 144.50–145.71 MHz, 146–148 MHz, 2390–2450 MHz segments;

(2) The 1.25 m, 70 cm and 23 cm bands; and

(3) The channels at 3.997 MHz and 53.30 MHz may be used in emergency areas when required to make initial contact with a military unit and for communications with military stations on matters requiring coordination.

(c) A RACES station may only communicate with:

(1) Another RACES station;

(2) An amateur station registered with a civil defense organization;

(3) A United States Government station authorized by the responsible agency to communicate with RACES stations;

(4) A station in a service regulated by the FCC whenever such communication is authorized by the FCC.

(d) An amateur station registered with a civil defense organization may only communicate with:

(1) A RACES station licensed to the civil defense organization with which the amateur station is registered;

(2) The following stations upon authorization of the responsible civil defense official for the organization with which the amateur station is registered:

(i) A RACES station licensed to another civil defense organization;