

**Federal Communications Commission**

**§ 23.20**

be maintained as prescribed in the following table:

Frequency range	Tolerances applicable to new transmitters installed after September 19, 1973, and to all transmitters after September 19, 1975	
	Percent	Parts per million
10 to 50 kHz .....	.1	1000
50 to 535 kHz .....	.02	200
1605 to 30,000 kHz .....	.0015	15
30 to 50 MHz .....	.002	20
50 to 000 MHz .....	.0005	5
1000 to 1850 MHz .....	.001	10
1850 to 1990 MHz .....	.02	200
1990 to 2500 MHz .....	.001	10
2500 to 10,500 MHz .....	.03	300
10,500 to 40,000 MHz .....	.05	500

(b) Until September 19, 1975, the frequency tolerance of transmitters installed at stations in these services before September 19, 1973, and operating within the frequency bands set forth below, shall be maintained within the following limits:

Frequency range	Tolerance (percent)
10 to 50 kHz .....	0.1
50 to 535 kHz .....	0.02
1605 to 30000 kHz .....	0.003
Above 30 MHz .....	( <sup>1</sup> )

<sup>1</sup> As set forth in the radio station license.

[38 FR 27386, Oct. 3, 1973]

**§ 23.17 Frequency measurement.**

Each station shall provide for the measurement of all frequencies assigned thereto, and establish a procedure for checking them regularly. These measurements shall be made by means independent of the frequency control of the transmitter and shall be of accuracy sufficient to detect deviation from the assigned frequency within one-half of the allowed tolerance. A record shall be kept of the results and dates of all frequency measurements.

[38 FR 22480, Aug. 21, 1973]

**§ 23.18 Authorization of power.**

(a) *Authorized power.* Power, when designated in the respective station license for a particular transmitter or transmitters, is peak envelope power for transmitters having full, unkeyed carrier, single sideband or independent

sideband emissions, and mean power for transmitters having other emissions, unless specifically expressed otherwise. Designation of effective radiated power may appear in the station license in addition to designation of power for a transmitter or transmitters, when deemed necessary by the Commission.

(b) *Use of minimum power.* In the interest of avoiding interference to other operations, all stations shall radiate only as much power as is necessary to ensure a satisfactory service.

[38 FR 22480, Aug. 21, 1973]

**§ 23.19 Use of directional antennas.**

Insofar as is practicable, directional antennas, of type consistent with the current state of art, shall be used on all circuits for both transmitting and receiving.

[38 FR 22480, Aug. 21, 1973]

**§ 23.20 Assignment of frequencies.**

(a) Only those frequencies which are in accordance with §2.106 of this chapter may be authorized for use by stations in the Fixed Public and Fixed Public Press Services. Selection of specific frequencies within such bands shall be made by the applicants therefor. After an application has been filed with the Commission for a particular frequency, its availability for assignment as requested will be determined by a study of the probabilities of interference to and from existing services assigned on the same or adjacent frequencies and, if necessary, by coordination with other agencies utilizing frequencies in these ranges. The applicant will be notified of the results of such study and coordination. All new assignments of frequencies may be made subject to certain conditions as may be required to minimize the possibility of harmful interference to existing services.

(b) In order to minimize possible harmful interference at the National Radio Astronomy Observatory site located at Green Bank, Pocahontas County, West Virginia, and at the Naval Radio Research Observatory site at Sugar Grove, Pendleton County, West Virginia, any applicant for a station authorization other than mobile,