Federal Communications Commission

§ 73.1570 Modulation levels: AM, FM, TV and Class A TV aural.

(a) The percentage of modulation is to be maintained at as high a level as is consistent with good quality of transmission and good broadcast service, with maximum levels not to exceed the values specified in paragraph (b). Generally, the modulation should not be less than 85% on peaks of frequent recurrence, but where lower modulation levels may be required to avoid objectionable loudness or to maintain the dynamic range of the program material, the degree of modulation may be reduced to whatever level is necessary for this purpose, even though under such circumstances, the level may be substantially less than that which produces peaks of frequent recurrence at a level of 85%.

(b) Maximum modulation levels must meet the following limitations:

(1) **AM stations.** In no case shall the amplitude modulation of the carrier wave exceed 100% on negative peaks of frequent recurrence, or 125% on positive peaks at any time.

(2) **FM stations.** The total modulation must not exceed 100 percent on peaks of frequent recurrence referenced to 75 kHz deviation. However, stations providing subsidiary communications services using subcarriers under provisions of §73.318 concurrently with the broadcasting of stereophonic or monophonic programs may increase the peak modulation deviation as follows:

   (i) The total peak modulation may be increased 0.5 percent for each 1.0 percent subcarrier injection modulation.
   
   (ii) In no event may the modulation of the carrier exceed 110 percent (82.5 kHz peak deviation).

(3) **TV and Class A TV stations.** In no case shall the total modulation of the aural carrier exceed 100% on peaks of frequent recurrence, unless some other peak modulation level is specified in an instrument of authorization. For monophonic transmissions, 100% modulation is defined as +/- 25 kHz.

(c) If a limiting or compression amplifier is employed to maintain modulation levels, precaution must be taken so as not to substantially alter the dynamic characteristics of programs.

§ 73.1580 Transmission system inspections.

Each AM, FM, TV and Class A TV station licensee or permittee must conduct periodic complete inspections of the transmitting system and all required monitors to ensure proper station operation.

§ 73.1590 Equipment performance measurements.

(a) The licensee of each AM, FM, TV and Class A TV station, except licensees of Class D non-commercial educational FM stations authorized to operate with 10 watts or less output power, must make equipment performance measurements for each main transmitter as follows:

(1) Upon initial installation of a new or replacement main transmitter.

(2) Upon modification of an existing transmitter made under the provisions of §73.1690, Modification of transmission systems, and specified therein.

(3) Installation of AM stereophonic transmission equipment pursuant to §73.128.