

§ 74.737 Antenna location.

(a) An applicant for a new low power TV, TV translator, or TV booster station or for a change in the facilities of an authorized station shall endeavor to select a site that will provide a line-of-sight transmission path to the entire area intended to be served and at which there is available a suitable signal from the primary station, if any, that will be retransmitted.

(b) The transmitting antenna should be placed above growing vegetation and trees lying in the direction of the area intended to be served, to minimize the possibility of signal absorption by foliage.

(c) A site within 8 kilometers of the area intended to be served is to be preferred if the conditions in paragraph (a) of this section can be met.

(d) Consideration should be given to the accessibility of the site at all seasons of the year and to the availability of facilities for the maintenance and operation of the transmitting equipment.

(e) The transmitting antenna should be located as near as is practical to the transmitter to avoid the use of long transmission lines and the associated power losses.

(f) Consideration should be given to the existence of strong radio frequency fields from other transmitters at the site of the transmitting equipment and the possibility that such fields may result in the retransmissions of signals originating on frequencies other than that of the primary station being re-broadcast.

[47 FR 21500, May 18, 1982, as amended at 52 FR 31404, Aug. 20, 1987]

§ 74.750 Transmission system facilities.

(a) A low power TV, TV translator, or TV booster station shall operate with a transmitter that is either certificated for licensing under the provisions of this subpart or type notified for use under part 73 of this chapter.

(b) Transmitting antennas, antennas used to receive the signals to be re-broadcast, and transmission lines are not certificated by the FCC. External preamplifiers also may be used provided that they do not cause improper operation of the transmitting equip-

ment, and use of such preamplifiers is not necessary to meet the provisions of paragraph (c) of this section.

(c) The following requirements must be met before low power TV and TV translator transmitters will be certificated by the FCC:

(1) The equipment shall be so designed that the electrical characteristics of a standard television signal introduced into the input terminals will be maintained at the output. The overall response of the apparatus within its assigned channel, when operating at its rated power output and measured at the output terminals, shall provide a smooth curve, varying within limits separated by no more than 4 dB: *Provided, however*, That means may be provided to reduce the amplitude of the aural carrier below those limits, if necessary to prevent intermodulation which would mar the quality of the retransmitted picture or result in emissions outside of the assigned channel.

(2) Radio frequency harmonics of the visual and aural carriers, measured at the output terminals of the transmitter, shall be attenuated no less than 60 dB below the peak visual output power within the assigned channel. All other emissions appearing on frequencies more than 3 megacycles above or below the upper and lower edges, respectively, of the assigned channel shall be attenuated no less than:

(i) 30 dB for transmitters rated at no more than 1 watt power output.

(ii) 50 dB for transmitters rated at more than 1 watt power output.

(iii) 60 dB for transmitters rated at more than 100 watts power output.

(3) When subjected to variations in ambient temperature between minus 30 degrees and plus 50 degrees Centigrade and variations in power main voltage between 85 percent and 115 percent of rated power supply voltage, the local oscillator frequency stability shall maintain the operating frequency within:

(i) 0.02 percent of its rated frequency for transmitters rated at no more than 100 watts peak visual power.

(ii) 0.002 percent of the rated frequency for transmitters rated at more than 100 watts peak visual power.

(iii) Plus or minus 1 kHz of its rated frequency for transmitters to be used