

## § 74.751

shall not be within 200 hertz of the Emergency Broadcast System Attention Signal alerting frequencies.

(8) Wiring, shielding, and construction shall be in accordance with accepted principles of good engineering practice.

(d) Low power TV, TV translator and transmitting equipment using a modulation process for either program origination or rebroadcasting TV booster transmitting equipment using a modulation process must meet the following requirements:

(1) The equipment shall meet the requirements of paragraphs (a)(1) and (b)(3) of § 73.687.

(2) The stability of the equipment shall be sufficient to maintain the operating frequency of the aural carrier to 4.5 MHz  $\pm$ 1kHz above the visual carrier when subjected to variations in ambient temperature between 30° and +50° centigrade and variations in power main voltage between 85 and 115 percent of rated power supply voltage.

(e) Certification will be granted only upon a satisfactory showing that the apparatus is capable of meeting the requirements of paragraphs (c) and (d) of this section. The following procedures shall apply:

(1) Any manufacturer of apparatus intended for use at low power TV, TV translator, or TV booster stations may request certification by following the procedures set forth in part 2, subpart J, of this chapter.

(2) Low power TV, TV translator, and TV booster transmitting apparatus that has been certificated by the FCC will normally be authorized without additional measurements from the applicant or licensee.

(3) Applications for certification of modulators to be used with existing certificated TV translator apparatus must include the specifications electrical and mechanical interconnecting requirements for the apparatus with which it is designed to be used.

(4) Other rules concerning certification, including information regarding withdrawal of type acceptance, modification of certificated equipment and limitations on the findings upon which certification is based, are set forth in part 2, subpart J, of this chapter.

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(f) The transmitting antenna system may be designed to produce horizontal, vertical, or circular polarization.

(g) Low power TV, TV translator, or TV booster stations installing new certificated transmitting apparatus incorporating modulating equipment need not make equipment performance measurements and shall so indicate on the station license application. Stations adding new or replacing modulating equipment in existing low power TV, TV translator, or TV booster station transmitting apparatus must have a qualified person examine the transmitting system after installation. This person must certify in the application for the station license that the transmitting equipment meets the requirements of paragraph (d)(1) of this section. A report of the methods, measurements, and results must be kept in the station records. However, stations installing modulating equipment solely for the limited local origination of signals permitted by § 74.731 need not comply with the requirements of this paragraph.

[28 FR 13722, Dec. 14, 1963, as amended at 33 FR 8677, June 13, 1968; 36 FR 19592, Oct. 8, 1971; 37 FR 25844, Dec. 5, 1972; 41 FR 17552, Apr. 27, 1976; 43 FR 1951, Jan. 13, 1978; 46 FR 35465, July 8, 1981; 47 FR 21500, May 18, 1982; 47 FR 30496, July 14, 1982; 52 FR 31404, Aug. 20, 1987; 60 FR 55483, Nov. 1, 1995; 62 FR 26722, May 14, 1997; 63 FR 36605, July 7, 1998]

### § 74.751 Modification of transmission systems.

(a) No change, either mechanical or electrical, may be made in apparatus which has been certificated by the Commission without prior authority of the Commission. If such prior authority has been given to the manufacturer of certificated equipment, the manufacturer may issue instructions for such changes citing its authority. In such cases, individual licensees are not required to secure prior Commission approval but shall notify the Commission when such changes are completed.

(b) Formal application (FCC Form 346) is required for any of the following changes:

(1) Replacement of the transmitter as a whole, except replacement with a transmitter of identical power rating which has been certificated by the FCC

for use by low power TV, TV translator, and TV booster stations, or any change which could result in a change in the electrical characteristics or performance of the station.

(2) Any change in the transmitting antenna system, including the direction of radiation, directive antenna pattern, antenna gain, transmission line loss characteristics, or height of antenna center of radiation.

(3) Any change in the overall height of the antenna structure, except where notice to the Federal Aviation Administration is specifically not required under § 17.14(b) of this chapter.

(4) Any horizontal change of the location of the antenna structure which would (i) be in excess of 152.4 meters (500 feet), or (ii) require notice to the Federal Aviation Administration pursuant to § 17.7 of the FCC's Rules.

(5) A change in frequency assignment.

(6) Any changes in the location of the transmitter except within the same building or upon the same pole or tower.

(7) A change of authorized operating power.

(c) Other equipment changes not specifically referred to in paragraphs (a) and (b) of this section may be made at the discretion of the licensee, provided that the FCC in Washington, DC, Attention: Video Division, Media Bureau, is notified in writing upon the completion of such changes.

(d) Upon installation of new or replacement transmitting equipment for which prior FCC authority is not required under the provisions of this section, the licensee must place in the station records a certification that the new installation complies in all respects with the technical requirements of this part and the station authorization.

[28 FR 13722, Dec. 14, 1963, as amended at 38 FR 6827, Mar. 13, 1973; 39 FR 38652, Nov. 1, 1974; 45 FR 26067, Apr. 17, 1980; 47 FR 21501, May 18, 1982; 48 FR 41423, Sept. 15, 1983; 50 FR 23710, June 5, 1985; 52 FR 31405, Aug. 20, 1987; 63 FR 33879, June 22, 1998; 63 FR 36605, July 7, 1998; 67 FR 13233, Mar. 21, 2002]

#### § 74.761 Frequency tolerance.

The licensee of a low power TV, TV translator, or TV booster station shall

maintain the transmitter output frequencies as set forth below. The frequency tolerance of stations using direct frequency conversion of a received signal and not engaging in offset carrier operation as set forth in paragraph (d) of this section will be referenced to the authorized plus or minus 10 kHz offset, if any, of the primary station.

(a) The visual carrier shall be maintained to within 0.02 percent of the assigned visual carrier frequency for transmitters rated at not more than 100 watts peak visual power.

(b) The visual carrier shall be maintained to within 0.002 percent of the assigned visual carrier frequency for transmitters rated at more than 100 watts peak visual power.

(c) The aural carrier of stations employing modulating equipment shall be maintained at 4.5 MHz  $\pm$  1 kHz above the visual carrier frequency.

(d) The visual carrier shall be maintained to within 1 kHz of the assigned channel carrier frequency if the low power TV, TV translator, or TV booster station is authorized with a specified offset designation in order to provide protection under the provisions of § 74.705 or § 74.707.

[43 FR 1952, Jan. 13, 1978, as amended at 52 FR 31405, Aug. 20, 1987]

#### § 74.762 Frequency measurements.

(a) The licensee of a low power TV station, a TV translator, or a TV booster station must measure the carrier frequencies of its output channel as often as necessary to ensure operation within the specified tolerances, and at least once each calendar year at intervals not exceeding 14 months.

(b) In the event that a low power TV, TV translator, or TV booster station is found to be operating beyond the frequency tolerance prescribed in § 74.761, the licensee promptly shall suspend operation of the transmitter and shall not resume operation until transmitter has been restored to its assigned frequencies. Adjustment of the frequency determining circuits of the transmitter shall be made only by a qualified person in accordance with § 74.750(g).

[52 FR 31405, Aug. 20, 1987]