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that necessary for the purposes of the test.

- (2) The carriers will be unmodulated except for the transmission of a test-pattern on a visual TV transmitter, and for hourly voice station identification on aural AM, FM and TV transmitters
- (3) The transmitter output power or antenna input power may not exceed those specified in the test authorization and the operating power must be maintained at a constant value for each phase of the tests.
- (4) The input power to the final amplifier stage, and the AM antenna current or the FM or TV transmitter output power must be observed and recorded at half hour intervals and at any time that the power is adjusted or changed. Copies of these records must be submitted to the FCC with the required report.
- (5) The test equipment may not be permanently installed, unless such installation has been separately authorized. Mobile units are not deemed permanent installations.
- (6) Test transmitters must be operated by or under the immediate direction of an operator holding a commercial radio operator license (any class, unless otherwise endorsed).
- (7) A report, containing the measurements, their analysis and other results of the survey shall be filed with the FCC in Washington, DC within sixty (60) days following the termination of the test authorization.
- (8) The test transmission equipment, installation and operation thereof need not comply with the requirements of FCC rules and standards except as specified in this section if the equipment, installation and operation are consistent with good engineering principles and practices.
- (d) A special field test authorization may be modified or terminated by notification from the FCC if in its judgment such action will promote the public interest, convenience and necessity.
- [44 FR 58734, Oct. 11, 1979, as amended at 46 FR 35463, July 8, 1981; 49 FR 4211, Feb. 3, 1984; 49 FR 20670, May 16, 1984]

## § 73.1520 Operation for tests and maintenance.

- (a) Broadcast stations may be operated for tests and maintenance of their transmitting systems on their assigned frequencies using their licensed operating power and antennas during their authorized hours of operation without specific authorization from the FCC.
- (b) Licensees of AM stations may operate for tests and maintenance during the hours from 12 midnight local time to local sunrise, if no interference is caused to other stations maintaining a regular operating schedule within such period. No AM station licensed for "daytime" or "specified hours" of operation may broadcast any regular or scheduled programs during this period of test and maintenance operation.
- (c) Licensees of AM stations may obtain special antenna test authorizations, and operate under the provisions described in §73.157, to operate with nighttime facilities during daytime hours in conducting directional antenna field strength and antenna proof of performance measurements.

[43 FR 32783, July 28, 1978, as amended at 45 FR 6401, Jan. 28, 1980]

### § 73.1530 Portable test stations [Definition].

A portable test station is one that is moved from place to place for making field strength and ground conductivity measurements, for selecting station transmitter sites, and conducting other specialized propagation tests. Portable test stations are not normally used while in motion, and may not be used for the transmission of programs intended to be received by the public.

[43 FR 32783, July 28, 1978]

# § 73.1540 Carrier frequency measurements.

- (a) The carrier frequency of each AM and FM station and the visual carrier frequency and the difference between the visual carrier and the aural carrier or center frequency of each TV and Class A TV station shall be measured or determined as often as necessary to ensure that they are maintained within the prescribed tolerances.
- (b) In measuring the carrier frequency, the licensee may use any

method or procedure that has sufficient precision to establish that the carrier frequency is within the prescribed departure limits.

(c) The primary standard of frequency for radio frequency measurements is the standard frequency maintained by the National Bureau of Standards or the standard signals of Stations WWV, WWVB, and WWVH of the National Bureau of Standards.

[43 FR 32783, July 28, 1978, as amended at 48 FR 44805, Sept. 30, 1983; 65 FR 30004, May 10, 2000]

#### § 73.1545 Carrier frequency departure tolerances.

- (a) *AM stations*. The departure of the carrier frequency for monophonic transmissions or center frequency for stereophonic transmissions may not exceed ±20 Hz from the assigned frequency.
- (b) FM stations. (1) The departure of the carrier or center frequency of an FM station with an authorized transmitter output power more than 10 watts may not exceed  $\pm 2000$  Hz from the assigned frequency.
- (2) The departure of the carrier or center frequency of an FM station with an authorized transmitter output power of 10 watts or less may not exceed  $\pm 3000$  Hz from the assigned frequency.
- (c) TV stations. (1) The departure of the visual carrier frequency of a TV station may not exceed ±1000 Hz from the assigned visual carrier frequency.
- (2) The departure of the aural carrier frequency of a TV station may not exceed ±1000 Hz from the actual visual carrier frequency plus exactly 4.5 MHz.
- (d) International broadcast stations. The departure of the carrier frequency of an International broadcast station may not exceed 0.0015% of the assigned frequency on which the station is transmitting.
- (e) Class A TV stations. The departure of the carrier frequency of Class A TV stations may not exceed the values specified in §74.761 of this chapter. Provided, however, that Class A TV stations licensed to operate with a carrier offset, including those stations licensed with a maximum effective radiated power and/or antenna height greater than the values specified in

their initial Class A TV station authorization, must comply with paragraph (c) of this section.

NOTE TO PARAGRAPH (e): At a date not later than nine months after release of the Memorandum Opinion and Order on Reconsideration in MM Docket No. 00–10 (the proceeding that established the Class A TV service), all licensed Class A stations must operate with a carrier frequency offset. See Memorandum Opinion and Order on Reconsideration, In the Matter of Establishment of a Class A Television Service, MM Docket No. 00–10, released April 13, 2001.

[44 FR 58734, Oct. 11, 1979; 44 FR 64408, Nov. 7, 1979, as amended at 47 FR 13165, Mar. 29, 1982; 65 FR 30004, May 10, 2000; 67 FR 21691, May 1, 2001]

# § 73.1560 Operating power and mode tolerances.

- (a) AM stations. (1) Except as provided for in paragraph (d) of this section, the antenna input power of an AM station as determined by the procedures specified in §73.51 must be maintained as near as is practicable to the authorized antenna input power and may not be less than 90% nor more than 105% of the authorized power.
- (2) Whenever the transmitter of an AM station cannot be placed into the specified operating mode at the time required, transmissions of the station must be immediately terminated. However, if the radiated field at any bearing or elevation does not exceed that permitted for that time of day, operation in the mode with the lesser radiated field may continue under the notification procedures of paragraph (d) of this section.
- (b) FM stations. Except as provided in paragraph (d) of this section, the transmitter output power of an FM station, with power output as determined by the procedures specified in §73.267, which is authorized for output power more than 10 watts must be maintained as near as practicable to the authorized transmitter output power and may not be less than 90% nor more than 105% of the authorized power. FM stations operating with authorized transmitter output power of 10 watts or less, may operate at less than the authorized power, but not more than 105% of the authorized power.