§ 73.811 LPFM power and antenna height requirements.

(a) LP100 stations: (1) Maximum facilities. LP100 stations will be authorized to operate with maximum facilities of 100 watts effective radiated power (ERP) at 30 meters antenna height above average terrain (HAAT). An LP100 station with a HAAT that exceeds 30 meters will not be permitted to operate with an ERP greater than that which would result in a 60 dBu contour of 5.6 kilometers. In no event will an ERP less than one watt be authorized. No facility will be authorized in excess of one watt ERP at 450 meters HAAT.

(2) Minimum facilities. LP100 stations may not operate with facilities less than 50 watts ERP at 30 meters HAAT or the equivalent necessary to produce a 60 dBu contour that extends at least 4.7 kilometers.

(b) LP10 stations: (1) Maximum Facilities. LP10 stations will be authorized to operate with maximum facilities of 10 watts ERP at 30 meters HAAT. An LP10 station with a HAAT that exceeds 30 meters will not be permitted to operate with an ERP greater than that which would result in a 60 dBu contour of 3.2 kilometers. In no event will an ERP less than one watt be authorized. No facility will be authorized in excess of one watt ERP at 100 meters HAAT.

(2) Minimum Facilities. LP10 stations may not operate with less than one watt ERP.

§ 73.812 Rounding of power and antenna heights.

(a) Effective radiated power (ERP) will be rounded to the nearest watt on LPFM authorizations.

(b) Antenna radiation center, antenna height above average terrain (HAAT), and antenna supporting structure height will all be rounded to the nearest meter on LPFM authorizations.

§ 73.813 Determination of antenna height above average terrain (HAAT).

HAAT determinations for LPFM stations will be made in accordance with the procedure detailed in § 73.313(d) of this part.

§ 73.816 Antennas.

(a) Permittees and licensees may employ nondirectional antennas with horizontal only polarization, vertical only polarization, circular polarization or elliptical polarization.

(b) Directional antennas will not be authorized and may not be utilized in the LPFM service, except as provided in paragraph (c) of this section.

(c) Public safety and transportation permittees and licensees, eligible pursuant to § 73.853(a)(ii), may utilize directional antennas in connection with the operation of a Travelers’ Information Service (TIS) provided each LPFM TIS station utilizes only a single antenna with standard pattern characteristics that are predetermined by the manufacturer. In no event may composite antennas (i.e., antennas that consist of multiple stacked and/or phased discrete transmitting antennas) and/or transmitters be employed.

(d) LPFM TIS stations will be authorized as nondirectional stations. The use of a directional antenna as provided for in paragraph (c) of this section will not be considered in the determination of compliance with any requirements of this part.

§ 73.825 Protection to reception of TV channel 6.

(a) LPFM stations will be authorized on Channels 201 through 220 only if the pertinent minimum separation distances in the following table are met with respect to all full power TV Channel 6 stations.