

§ 73.508

§ 73.508 Standards of good engineering practice.

(a) All noncommercial educational stations and LPFM stations operating with more than 10 watts transmitter power output shall be subject to all of the provisions of the FM Technical Standards contained in subpart B of this part. Class D educational stations and LPFM stations operating with 10 watts or less transmitter output power shall be subject to the definitions contained in § 73.310, and also to those other provisions of the FM Technical Standards which are specifically made applicable to them by the provisions of this subpart.

(b) The transmitter and associated transmitting equipment of each non-commercial educational FM station and LPFM station licensed for transmitter power output above 10 watts must be designed, constructed and operated in accordance with § 73.317.

(c) The transmitter and associated transmitting equipment of each non-commercial educational FM station licensed for transmitter power output of 10 watts or less, although not required to meet all requirements of § 73.317, must be constructed with the safety provisions of the current national electrical code as approved by the American National Standards Institute. These stations must be operated, tuned, and adjusted so that emissions are not radiated outside the authorized band causing or which are capable of causing interference to the communications of other stations. The audio distortion, audio frequency range, carrier hum, noise level, and other essential phases of the operation which control the external effects, must be at all times capable of providing satisfactory broadcast service. Studio equipment properly covered by an underwriter's certificate will be considered as satisfying safety requirements.

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§ 73.509 Prohibited overlap.

(a) An application for a new or modified NCE-FM station other than a Class D (secondary) station will not be accepted if the proposed operation would involve overlap of signal strength contours with any other station licensed

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by the Commission and operating in the reserved band (Channels 200–220, inclusive) as set forth below:

Frequency separation	Contour of proposed station	Contour of other station
Co-channel	0.1 mV/m (40 dBu) ...	1 mV/m (60 dBu)
	1 mV/m (60 dBu)	0.1 mV/m (40 dBu)
200 kHz	0.5 mV/m (54 dBu) ..	1 mV/m (60 dBu)
	1 mV/m (60 dBu)1 ...	0.5 mV/m (54 dBu)
400 kHz/600 kHz.	100 mV/m (100 dBu)	1 mV/m (60 dBu)
	1 mV/m (60 dBu)	100 mV/m (100 dBu)

(b) An application by a Class D (secondary) station, other than an application to change class, will not be accepted if the proposed operation would involve overlap of signal strength contours with any other station as set forth below:

Frequency separation	Contour of proposed station	Contour of any other station
Co-channel	0.1 mV/m (40 dBu) ..	1 mV/m (60 dBu).
200 kHz	0.5 mV/m (54 dBu) ..	1 mV/m (60 dBu).
400 kHz	10 mV/m (80 dBu) ...	1 mV/m (60 dBu).
600 kHz	100 mV/m (100 dBu)	1 mV/m (60 dBu).

(c) The following standards must be used to compute the distances to the pertinent contours:

(1) The distance of the 60 dBu (1 mV/m) contours are to be computed using Figure 1 of § 73.333 [F(50,50) curves] of this part.

(2) The distance to the other contours are to be computed using Figure 1a of § 73.333 [F(50,10) curves]. In the event that the distance to the contour is below 16 kilometers (approximately 10 miles), and therefore not covered by Figure 1a, curves in Figure 1 must be used.

(3) The effective radiated power (ERP) that is the maximum ERP for any elevation plane on any bearing will be used.

(d) An application for a change (other than a change in channel) in the facilities of a NCE-FM broadcast station will be accepted even though overlap of signal strength contours, as specified in paragraphs (a) and (b) of this section, would occur with another station in an area where such overlap does not already exist, if:

(1) The total area of overlap with that station would not be increased;

(2) The area of overlap with any other station would not increase;