

§ 74.1203

47 CFR Ch. I (10–1–08 Edition)

MHz) shall not cause harmful interference to and must accept interference from non-Government fixed operations authorized prior to January 1, 1982.

(c) An FM broadcast booster station will be assigned the channel assigned to its primary station.

[35 FR 15388, Oct. 2, 1970, as amended at 39 FR 12990, Apr. 10, 1974; 47 FR 30068, July 12, 1982; 52 FR 8260, Mar. 17, 1987; 55 FR 50693, Dec. 10, 1990]

§ 74.1203 Interference.

(a) An authorized FM translator or booster station will not be permitted to continue to operate if it causes any actual interference to:

(1) The transmission of any authorized broadcast station; or

(2) The reception of the input signal of any TV translator, TV booster, FM translator or FM booster station; or

(3) The direct reception by the public of the off-the-air signals of any authorized broadcast station including TV Channel 6 stations, Class D (secondary) noncommercial educational FM stations, and previously authorized and operating FM translators and FM booster stations. Interference will be considered to occur whenever reception of a regularly used signal is impaired by the signals radiated by the FM translator or booster station, regardless of the quality of such reception, the strength of the signal so used, or the channel on which the protected signal is transmitted.

(b) If interference cannot be properly eliminated by the application of suitable techniques, operation of the offending FM translator or booster station shall be suspended and shall not be resumed until the interference has been eliminated. Short test transmissions may be made during the period of suspended operation to check the efficacy of remedial measures. If a complainant refuses to permit the FM translator or booster licensee to apply remedial techniques which demonstrably will eliminate the interference without impairment to the original reception, the licensee of the FM translator or booster station is absolved of further responsibility for that complaint.

(c) An FM booster station will be exempted from the provisions of paragraphs (a) and (b) of this section to the extent that it may cause limited interference to its primary station's signal, *provided* it does not disrupt the existing service of its primary station or cause such interference within the boundaries of the principal community of its primary station.

(d) A fill-in FM translator operating on the first, second or third adjacent channel to its primary station's channel will be exempt from the provisions of paragraphs (a) and (b) of this section to the extent that it may cause limited interference to its primary station's signal, *provided* it does not disrupt the existing service of its primary station or cause such interference within the boundaries of the principal community of its primary station.

(e) It shall be the responsibility of the licensee of an FM translator or FM booster station to correct any condition of interference which results from the radiation of radio frequency energy by its equipment on any frequency outside the assigned channel. Upon notice by the Commission to the station licensee that such interference is being caused, the operation of the FM translator or FM booster station shall be suspended within three minutes and shall not be resumed until the interference has been eliminated or it can be demonstrated that the interference is not due to spurious emissions by the FM translator or FM booster station; *provided, however*, that short test transmissions may be made during the period of suspended operation to check the efficacy of remedial measures.

[55 FR 50693, Dec. 10, 1990, as amended at 60 FR 55484, Nov. 1, 1995]

§ 74.1204 Protection of FM broadcast, FM Translator and LP100 stations.

(a) An application for an FM translator station will not be accepted for filing if the proposed operation would involve overlap of predicted field contours with any other authorized commercial or noncommercial educational FM broadcast stations, FM translators, and Class D (secondary) noncommercial educational FM stations; or if it would result in new or increased overlap with an LP100 station, as set forth:

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**(1) Commercial Class B FM Stations
(Protected Contour: 0.5 mV/m)**

Frequency separation	Interference contour of proposed translator station	Protected contour of commercial Class B station
Co-channel.	0.05 mV/m (34 dBu)	0.5 mV/m (54 dBu)
200 kHz	0.25 mV/m (48 dBu)	0.5 mV/m (54 dBu)
400 kHz/600 kHz.	50.0 mV/m (94 dBu)	0.5 mV/m (54 dBu)

**(2) Commercial Class B1 FM Stations
(Protected Contour: 0.7 mV/m)**

Frequency separation	Interference contour of proposed translator station	Protected contour of commercial Class B1 station
Co-channel.	0.07 mV/m (37 dBu)	0.7 mV/m (57 dBu)
200 kHz	0.35 mV/m (51 dBu)	0.5 mV/m (57 dBu)
400 kHz/600 kHz.	70.0 mV/m (97 dBu)	0.7 mV/m (57 dBu)

**(3) All Other Classes of FM Stations
(Protected Contour: 1 mV/m)**

Frequency separation	Interference contour of proposed translator	Protected 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/600 kHz.	100 mV/m (100 dBu)	1 mV/m (60 dBu)

(4) LP100 stations (Protected Contour: 1 mV/m)

Frequency separation	Interference contour of proposed translator station	Protected contour of LP100 LPFM 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)

NOTE TO PARAGRAPH (a)(4): LP100 stations, to the purposes of determining overlap pursuant to this paragraph, LPFM applications and permits that have not yet been licensed must be considered as operating with the maximum permitted facilities. All LPFM TIS stations must be protected on the basis of a nondirectional antenna.

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

(1) The distances to the protected contours are computed using Figure 1 of § 73.333 [F(50,50) curves] of this chapter.

(2) The distances to the interference contours are computed using Figure 1a of § 73.333 [F(50,10) curves] of this chapter. 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) to be used is the maximum ERP of the main radiated lobe in the pertinent azimuthal direction. If the transmitting antenna is not horizontally polarized only, either the vertical component or the horizontal component of the ERP should be used, whichever is greater in the pertinent azimuthal direction.

(4) The antenna height to be used is the height of the radiation center above the average terrain along each pertinent radial, determined in accordance with § 73.313(d) of this chapter.

(c) An application for a change (other than a change in channel) in the authorized facilities of an FM translator station will be accepted even though overlap of field strength contours 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;

(3) The area of overlap does not move significantly closer to the station receiving the overlap; and,

(4) No area of overlap would be created with any station with which the overlap does not now exist.

(d) The provisions of this section concerning prohibited overlap will not apply where the area of such overlap lies entirely over water. In addition, an application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such other factors as may be applicable.

(e) The provisions of this section will not apply to overlap between a proposed fill-in FM translator station and its primary station operating on a

first, second or third adjacent channel, *provided* That such operation may not result in interference to the primary station within its principal community.

(f) An application for an FM translator station will not be accepted for filing even though the proposed operation would not involve overlap of field strength contours with any other station, as set forth in paragraph (a) of this section, if the predicted 1 mV/m field strength contour of the FM translator station will overlap a populated area already receiving a regularly used, off-the-air signal of any authorized co-channel, first, second or third adjacent channel broadcast station, including Class D (secondary) noncommercial educational FM stations and grant of the authorization will result in interference to the reception of such signal.

(g) An application for an FM translator or an FM booster station that is 53 or 54 channels removed from an FM radio broadcast station will not be accepted for filing if it fails to meet the required separation distances set out in § 73.207 of this chapter. For purposes of determining compliance with § 73.207 of this chapter, translator stations will be treated as Class A stations and booster stations will be treated the same as their FM radio broadcast station equivalents. FM radio broadcast station equivalents will be determined in accordance with §§ 73.210 and 73.211 of this chapter, based on the booster station's ERP and HAAT. Provided, however, that FM translator stations and booster stations operating with less than 100 watts ERP will be treated as class D stations and will not be subject to intermediate frequency separation requirements.

(h) An application for an FM translator station will not be accepted for filing if it specifies a location within 320 kilometers (approximately 199 miles) of either the Canadian or Mexican borders and it does not comply with § 74.1235(d) of this part.

(i) FM booster stations shall be subject to the requirement that the signal of any first adjacent channel station must exceed the signal of the booster station by 6 dB at all points within the protected contour of any first adjacent channel station, except that in the case

of FM stations on adjacent channels at spacings that do not meet the minimum distance separations specified in § 73.207 of this chapter, the signal of any first adjacent channel station must exceed the signal of the booster by 6 dB at any point within the predicted interference free contour of the adjacent channel station.

(j) FM translator stations authorized prior to June 1, 1991 with facilities that do not comply with the predicted interference protection provisions of this section, may continue to operate, provided that operation is in conformance with § 74.1203 regarding actual interference. Applications for major changes in FM translator stations must specify facilities that comply with provisions of this section.

[55 FR 50694, Dec. 10, 1990, as amended at 56 FR 56170, Nov. 1, 1991; 58 FR 42025, Aug. 6, 1993; 65 FR 7649, Feb. 15, 2000; 65 FR 67304, Nov. 9, 2000; 65 FR 79780, Dec. 20, 2000]

§ 74.1205 Protection of channel 6 TV broadcast stations.

The provisions of this section apply to all applications for construction permits for new or modified facilities for a noncommercial educational FM translator station on Channels 201–220, unless the application is accompanied by a written agreement between the NCE-FM translator applicant and each affected TV Channel 6 broadcast station licensee or permittee concurring with the proposed NCE-FM translator facility.

(a) An application for a construction permit for new or modified facilities for a noncommercial educational FM translator station operating on Channels 201–220 must include a showing that demonstrates compliance with paragraph (b), (c) or (d) of this section if it is within the following distances of a TV broadcast station which is authorized to operate on Channel 6.

FM Channel	Distance (kilometers)
201	148
202	146
203	143
204	141
205	140
206	137
207	135
208	135
209	135