

(i) The reference distance of a station is obtained by finding the predicted distance to the 1mV/m contour using Figure 1 of §73.333 and then rounding to the nearest kilometer. Antenna HAAT is determined using the procedure in §73.313. If the HAAT so determined is less than 30 meters (100 feet), a HAAT of 30 meters must be used when finding the predicted distance to the 1 mV/m contour.

(ii) If a station's ERP is equal to the maximum for its class, its antenna HAAT must not exceed the reference HAAT, regardless of the reference distance. For example, a Class A station operating with 6 kW ERP may have an antenna HAAT of 100 meters, but not 101 meters, even though the reference distance is 28 km in both cases.

(iii) Except as provided in paragraph (b)(3) of this section, no station will be authorized in Zone I or I-A with an ERP equal to 50 kW and a HAAT exceeding 150 meters. No station will be authorized in Zone II with an ERP equal to 100 kW and a HAAT exceeding 600 meters.

(2) If a station has an antenna HAAT greater than the reference HAAT for its class, its ERP must be lower than the class maximum such that the reference distance does not exceed the class contour distance. If the antenna HAAT is so great that the station's ERP must be lower than the minimum ERP for its class (specified in paragraphs (a)(1) and (a)(3) of this section), that lower ERP will become the minimum for that station.

(3) For stations located in Puerto Rico or the Virgin Islands, the maximum ERP in any direction, reference HAAT, and distance to the class contour for each FM station class are listed below:

Station class	Maximum ERP	Reference HAAT in meters (ft.)	Class contour distance in kilometers
A	6kW (7.8 dBk)	240 (787)	42
B1	25kW (14.0 dBk)	150 (492)	46
B	50kW (17.0 dBk)	472 (1549)	78

(c) *Existing stations.* Stations authorized prior to March 1, 1984 that do not conform to the requirements of this section may continue to operate as authorized. Stations operating with fa-

cilities in excess of those specified in paragraph (b) of this section may not increase their effective radiated powers or extend their 1 mV/m field strength contour beyond the location permitted by their present authorizations. The provisions of this section will not apply to applications to increase facilities for those stations operating with less than the minimum power specified in paragraph (a) of this section.

(d) *Existing Class C stations below minimum antenna HAAT.* Class C stations authorized prior to January 19, 2001 that do not meet the minimum antenna HAAT specified in paragraph (a)(2) of this section for Class C stations may continue to operate as authorized subject to the reclassification procedures set forth in Note 4 to §73.3573.

[53 FR 17042, May 13, 1988, as amended at 54 FR 16367, Apr. 24, 1989; 54 FR 19374, May 5, 1989; 54 FR 35339, Aug. 25, 1989; 65 FR 79777, Dec. 20, 2000]

**§ 73.212 Administrative changes in authorizations.**

(a) In the issuance of FM broadcast station authorizations, the Commission will specify the transmitter output power and effective radiated power in accordance with the following tabulation:

Power (watts or kW)	Rounded out to nearest figure (watts or kW)
1 to 3	.05
3 to 10	.1
10 to 30	.5
30 to 100	1
100 to 300	5
300 to 1,000	10

(b) Antenna heights above average terrain will be rounded out to the nearest meter.

[28 FR 13623, Dec. 14, 1963, as amended at 48 FR 29506, June 27, 1983]

**§ 73.213 Grandfathered short-spaced stations.**

(a) Stations at locations authorized prior to November 16, 1964, that did not meet the separation distances required by §73.207 and have remained continuously short-spaced since that time may be modified or relocated with respect

to such short-spaced stations, *provided that* (i) any area predicted to receive interference lies completely within any area currently predicted to receive co-channel or first-adjacent channel interference as calculated in accordance with paragraph (a)(1) of this section, or that (ii) a showing is provided pursuant to paragraph (a)(2) of this section that demonstrates that the public interest would be served by the proposed changes.

(1) The F(50,50) curves in Figure 1 of §73.333 are to be used in conjunction with the proposed effective radiated power and antenna height above average terrain, as calculated pursuant to §73.313(c), (d)(2) and (d)(3), using data for as many radials as necessary, to determine the location of the desired (service) field strength. The F(50,10) curves in Figure 1a of §73.333 are to be used in conjunction with the proposed effective radiated power and antenna height above average terrain, as calculated pursuant to §73.313(c), (d)(2) and (d)(3), using data for as many radials as necessary, to determine the location of the undesired (interfering) field strength. Predicted interference is defined to exist only for locations where the desired (service) field strength exceeds 0.5 mV/m (54 dBu) for a Class B station, 0.7 mV/m (57 dBu) for a Class B1 station, and 1 mV/m (60 dBu) for any other class of station.

(i) Co-channel interference is predicted to exist, for the purpose of this section, at all locations where the undesired (interfering station) F(50,10) field strength exceeds a value 20 dB below the desired (service) F(50,50) field strength of the station being considered (e.g., where the protected field strength is 60 dBu, the interfering field strength must be 40 dBu or more for predicted interference to exist).

(ii) First-adjacent channel interference is predicted to exist, for the purpose of this section, at all locations where the undesired (interfering station) F(50,10) field strength exceeds a value 6 dB below the desired (service) F(50,50) field strength of the station being considered (e.g., where the protected field strength is 60 dBu, the interfering field strength must be 54 dBu or more for predicted interference to exist).

(2) For co-channel and first-adjacent channel stations, a showing that the public interest would be served by the changes proposed in an application must include exhibits demonstrating that the total area and population subject to co-channel or first-adjacent channel interference, caused and received, would be maintained or decreased. In addition, the showing must include exhibits demonstrating that the area and the population subject to co-channel or first-adjacent channel interference caused by the proposed facility to each short-spaced station individually is not increased. In all cases, the applicant must also show that any area predicted to lose service as a result of new co-channel or first-adjacent-channel interference has adequate aural service remaining. For the purpose of this section, adequate service is defined as 5 or more aural services (AM or FM).

(3) For co-channel and first-adjacent-channel stations, a copy of any application proposing interference caused in any areas where interference is not currently caused must be served upon the licensee(s) of the affected short-spaced station(s).

(4) For stations covered by this paragraph (a), there are no distance separation or interference protection requirements with respect to second-adjacent and third-adjacent channel short-spacings that have existed continuously since November 16, 1964.

(b) Stations at locations authorized prior to May 17, 1989, that did not meet the IF separation distances required by §73.207 and have remained short-spaced since that time may be modified or relocated provided that the overlap area of the two stations' 36 mV/m field strength contours is not increased.

(c) Short spacings involving at least one Class A allotment or authorization. Stations that became short spaced on or after November 16, 1964 (including stations that do not meet the minimum distance separation requirements of paragraph (c)(1) of this section and that propose to maintain or increase their existing distance separations) may be modified or relocated in accordance with paragraph (c)(1) or (c)(2) of this section, except that this provision does not apply to stations

that became short spaced by grant of applications filed after October 1, 1989, or filed pursuant to §73.215. If the reference coordinates of an allotment are short spaced to an authorized facility or another allotment (as a result of the revision of §73.207 in the Second Report and Order in MM Docket No. 88-375), an application for the allotment may be authorized, and subsequently modified after grant, in accordance with paragraph (c)(1) or (c)(2) of this section only with respect to such short spacing. No other stations will be authorized pursuant to these paragraphs.

(1) *Applications for authorization under requirements equivalent to those of prior rules.* Each application for authority to operate a Class A station with no more than 3000 watts ERP and 100 meters antenna HAAT (or equivalent lower ERP and higher antenna HAAT based on a class contour distance of 24 km) must specify a transmitter site that meets

the minimum distance separation requirements in this paragraph. Each application for authority to operate a Class A station with more than 3000 watts ERP (up to a maximum of 5800 watts), but with an antenna HAAT lower than 100 meters such that the distance to the predicted 0.05 mV/m (34 dBµV/m) F(50,10) field strength contour does not exceed 98 km must specify a transmitter site that meets the minimum distance separation requirements in this paragraph. Each application for authority to operate an FM station of any class other than Class A must specify a transmitter site that meets the minimum distance separation requirements in this paragraph with respect to Class A stations operating pursuant to this paragraph or paragraph (c)(2) of this section, and that meets the minimum distance separation requirements of §73.207 with respect to all other stations.

MINIMUM DISTANCE SEPARATION REQUIREMENTS IN KILOMETERS (MILES)

Relation	Co-channel	200 kHz	400/600 kHz	10.6/10.8 MHz
A to A .....	105 (65)	64 (40)	27 (17)	8 (5)
A to B1 .....	138 (86)	88 (55)	48 (30)	11 (6)
A to B .....	163 (101)	105 (65)	69 (43)	14 (9)
A to C3 .....	138 (86)	84 (52)	42 (26)	11 (6)
A to C2 .....	163 (101)	105 (65)	55 (34)	14 (9)
A to C1 .....	196 (122)	129 (80)	74 (46)	21 (13)
A to C .....	222 (138)	161 (100)	94 (58)	28 (17)

(2) Applications for authorization of Class A facilities greater than 3,000 watts ERP and 100 meters HAAT. Each application to operate a Class A station with an ERP and HAAT such that the reference distance would exceed 24 kilometers must contain an exhibit demonstrating the consent of the licensee of each co-channel, first, second or third adjacent channel station (for which the requirements of §73.207 are not met) to a grant of that application. Each such application must specify a transmitter site that meets the applicable IF-related channel distance separation requirements of §73.207. Applications that specify a new transmitter site which is short-spaced to an FM station other than another Class A station which is seeking a mutual increase in facilities may be granted only if no alternative fully-spaced site or less short-spaced site is available. Li-

censees of Class A stations seeking mutual increases in facilities need not show that a fully spaced site or less short-spaced site is available. Applications submitted pursuant to the provisions of this paragraph may be granted only if such action is consistent with the public interest.

[52 FR 37789, Oct. 9, 1987, as amended at 54 FR 14964, Apr. 14, 1989; 54 FR 35339, Aug. 25, 1989; 56 FR 27426, June 14, 1991; 62 FR 50521, Sept. 26, 1997; 63 FR 33876, June 22, 1998]

**§ 73.215 Contour protection for short-spaced assignments.**

The Commission will accept applications that specify short-spaced antenna locations (locations that do not meet the domestic co-channel and adjacent channel minimum distance separation requirements of §73.207); Provided