paragraphs (f)(1) and (f)(2) by revising the second sentence to read as follows:

§21.902 Frequency interference.

(a) All applicants, conditional licensees, and licensees shall make exceptional efforts to avoid harmful interference to other users and to avoid blocking potential adjacent channel use in the same city and cochannel use in nearby cities. In areas where major cities are in close proximity, careful consideration should be given to minimum power requirements and to the location, height, and radiation pattern of the transmitting antenna. Licensees, conditional licensees, and applicants are expected to cooperate fully in attempting to resolve problems of potential interference before bringing the matter to the attention of the Commission.

(b) As a condition for use of frequency in this service, each applicant, conditional licensee, and licensee is required to:

Not enter into any lease or contract or otherwise take any action that would unreasonably prohibit location of another station's transmitting antenna at any given site inside its own protected service area.

(3) Engineer the system to provide at least 45 dB of cochannel interference protection within the 56.33 km (35 mile) protected service area of any authorized or previously proposed station that transmit, or may transmit, signals for standard television reception.

(4) Engineer the station to provide at least 0 dB of adjacent channel interference protection within the 56.33 km (35 mile) protected service area of any authorized or previously proposed station that transmits, or may transmit, signals for standard television reception.

(5) (i) Engineer the station to limit the calculated free space power flux density to -73 dBW/m^2 at the boundary of a 56.33 km (35 mile) protected service area, where there is an unobstructed signal path from the transmitting antenna to the boundary; or alternatively, obtain the written consent of the entity authorized for the adjoining area to exceed the -73 dBW/m^2 limiting signal strength at the common boundary.

(ii) In determining signal path conditions, the following shall be used: a 9.1 meter (30 feet) receiving antenna height, the transmitting antenna height, terrain elevations and 4/3 earth radius propagation conditions.

(6) If a proposed station is within 80 km (50 miles) of the Canadian or Mexican border, the station must be designed to meet the requirements set

forth in international treaties. (c) The following interference studies must be prepared, must be available to the Commission upon request, and may be submitted as part of any application:

(1) An analysis of the potential for harmful interference within the 56.33 km (35 mile) protected service areas of any authorized or previously proposed incumbent station:

(i) if the coordinates of the applicant's proposed transmitter are within 160.94 km (100 miles) of the center coordinates of any authorized or previously proposed incumbent station with protected service area of 56.33 km (35 miles) as specified in §21.902(d); or * * *

(2) Applicants may design interference studies in any manner that demonstrates the avoidance of harmful interference, as defined in this subpart.

In lieu of interference studies, applicants may submit in accordance with §21.938 a written statement of no objection to the operation of the MDS station.

(ii) The Commission may direct applicants to submit interference studies of a specific nature.

(3) Except for new stations proposed in applications filed after September 15, 1995, in the case of a proposal to operate a non-colocated station within the protected service area of an authorized, or previously proposed, adjacent channel station, an analysis that identifies the areas within the protected service areas of both the authorized or previously proposed adjacent channel station and the proposed station that cannot be protected as specified in §21.902(b)(4) and an explanation of why the proposed station cannot be colocated with the existing or previously proposed station. * * *

(d) (1) Subject to the limitations contained in paragraph (e) of this section, each MDS station licensee shall be protected from harmful electrical interference, as determined by the theoretical calculations, for a protected service area of which the boundary will be 56.3255 kilometers (35 miles) from the transmitter site.

(2) As of September 15, 1995, the location of these protected service area boundaries shall become fixed. The center of the circular area shall be the geographic latitude and longitude of the transmitting antenna site specified in station authorizations or previously proposed applications filed at the Commission before September 15, 1995. Subsequent transmitter site changes will not change the location of the 56.3255

kilometers (35 mile) protected service area boundaries.

(f) In addressing potential harmful interference in this service, the following definitions, procedures and other criteria shall apply:

(1) * * * Harmful interference will be considered present when a free space calculation for an unobstructed signal path determines that this ratio is less than 45 dB.

(2) * * * Harmful interference will be considered present when a free space calculation for an unobstructed signal path determines that this ratio is less than 0 dB. * * *

(4) For purposes of this section, the received signal power level (RSL)_{dBW} at the output of the FCC reference receiving antenna is obtained from the following formulas (or an equivalent adaptation):

 $(RSL)_{dBW} = (EIRP)_{dBW} - (L_{FS})_{dB} + (G_{AR})_{dB}$ where the free space loss (L_{FS}) is $(L_{FS})_{dB}=20 \log (\hat{4}\pi d/\lambda) dB$

in which the parameters are defined as follows:

(RSL)_{dBW} is the received power in decibels referenced to one watt.

(EIRP)_{dBW} is the equivalent isotropically radiated power in decibels above one watt.

d is the distance of the signal path in meters.

 λ is the wavelength of the signal in meters

G_{AR} is the dB gain of the reference receiving antenna above an isotropic antenna (obtained from Figure 1 of this section.)

(5) A determination of signal path conditions shall use a 9.1 meters (30 feet) receiving antenna height, the transmitting antenna height, terrain elevation, and assume 4/3 earth radius propagation conditions.

(6) Ăn application will not be accepted for filing if cochannel or adjacent channel interference is predicted at the boundary of the 56.33 km (35 mile) protected service area of an authorized or previously proposed incumbent station based on the following criteria:

(i) interference calculations shall be made only for directions where there is an unobstructed signal path from the site of a proposed station to the boundary of any protected area.

(ii) calculations of received power levels in units of dBW from the proposed station will be made at one degree intervals around the protected service area.

(iii) the assumed value of the desired signal level at the boundary of an