

NEW - Gurabo, PR

Exhibit 11 - Figure 1 (amended)

ENGINEERING STATEMENT

This Engineering Statement supports an amendment to application of Luis Cajiga seeking a construction permit an FM broadcast translator to serve the Gurabo, Puerto area and to operate on FM Channel 279 (103.9 mHz) with an effective radiated power of 0.010 kilowatts employing a directional antenna at 129 meters AMSL.

The original application employed channel 280, a different antenna pattern and an ERP of 0.020 kW.

A search of the FM band indicates there is no clear channel available that meets the criteria specifically set forth in 47 C.F.R. Section §74.1204. However, FM channel 279 appears most likely able to meet the separation requirements in 47 C.F.R. Section §74.1204.

A search of the pertinent adjacent channels using standard prediction method and the ratio of desired to undesired signal strengths called for in 47 C.F.R. Section §74.1204, reveal three channels with which overlap could occur

- A) WERR, Utuado, PR, Ch 281B, 50 kW, 609mAMSL
- B) WVJP, Caguas, PR, Ch 277B, 28 kW, 813mAMSL
- C) W280CE, San Juan, PR, Ch 280, 0.024 kW, 32mAMSL

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ENGINEERING STATEMENT (Cont'd)

WERR, Utuado, PR

The instant proposal must protect the 54 dBu, F50,50 contour of WERR with its 94 dBu, F50,10 contour or provide for a 40 dB separation of desired to undesired fields

amendment serves to show the lack of interference between second adjacent channel WERR and the instant proposed in a manner compliant with 47 C.F.R. section §74.1204 of the rules

The distance between the WERR transmitter site and the instant proposed site is 68.21 km. At that distance, the WERR predicted field strength is 57.19 dBu. Thus, anyone dwelling within the 97.19 dBu contour of the instant proposed could receive interference ($57.19 + 40 = 97.19$ dBu)

Figure 1a (amended) is a portion of the Caguas, PR topographical map (enlarged to a scale of 1:10,000) upon which is plotted the proposed 97.19 dBu contour. As is demonstrated, there are no dwellings within this contour. The two buildings shown on the map within the contour are the buildings associated with WVJP-AM and FM - one is a storage garage and the other, the offices of the radio station. Figure 1b is a tabulation of the distances

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ENGINEERING STATEMENT (Cont'd)

In constructing the 97.19 dBu contour, use was made of "free space" formulas because the FCC curves do not allow such close calculation. The free space formula employed was:

$$\text{Field} = 106.9 + \text{ERP}_{\text{dBk}} - 20 \log_{10}(\text{Dist})$$

A variation of the above is used to obtain the distance:

$$\text{Dist.} = \frac{106.9 + \text{ERP}_{\text{dBk}} - \text{Field}}{20} \times$$

WVJP, Caguas, PR

The instant proposal must protect the 54 dBu F50,50 contour of WVJP on channel 277 with a separation of 40 dB. The distance between the WVJP transmitter site and the instant proposed transmitter site is 18.68 kilometers. The average elevation for the bearing 251.2° is 179.5 m. The WVJP transmitter site is 813 meters AMSL which places the radiated signal along that bearing at 633.5 meters AAT. At 28 kilowatts radiated and 633.5 meters AAT, the field at the instant proposed transmitter site is 90.51 dBu. Added to the undesired ratio of 40 dB, the resultant is 130.51 dBu for the area of interference. Since the radiated value and height of the instant proposed antenna is below the FCC F50,50 curves, the free space formula was employed to determine the area of interference.

The free space formula employed is:

$$\text{Field} = 106.9 + \text{ERP}_{\text{dBk}} - 20 \log_{10}(\text{Dist})$$

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A variation of the above is used to obtain the distance:

$$\text{Dist.} = \frac{106.9 + \text{ERP}_{\text{dBk}} - \text{Field}}{20} \times 10^x$$

Distance in km $\times 3281$ = feet for the pertinent contour

A worst case condition for WVJP versus the instant proposed is at 0.01 kW. The distance to the 130.51 dBu contour using "free space" is 21.65 feet.

W280CE, San Juan, PR

This is now an adjacent channel FM translator operating at 0.024 kW at 32 mAMSL. The instant proposed translator must protect W280CE to its 60 dBu F50,50 contour. Exhibit 11, Figure 6 in the first application depicts the W280CE and the instant proposed 60 dBu, F50,50 and 40 dBu, F50,10 contours. There is no overlap of either facility to the other when they were co-channel then surely as adjacent channels.

STATEMENT WITH REGARD TO 47 C.F.R. SECTION §73.1692(a)

Applicant proposes to mount the instant proposed antenna on the AM broadcast radiator of WVJP. WVJP is a non-directional AM broadcast facility and will be secured according to the requirements of 47 C.F.R. Section §73.1692(a).