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ENGINEERING REPORT

K278CR, Houston, TX, Minor Change Application to 223D

ENGINEERING STATEMENT

Due to claimed interference caused by K278CR to KHJK, LaPorte, TX 279C and KCYB-LP, Cypress, TX 278L, the applicant is requesting a non-adjacent-channel change to channel 223. (Note that none of the typical minor change channels are available as a solution to the claimed interference.)

All contour non-overlap protection requirements are met with the exception of KROI, Seabrook, TX 221C1 and KKBQ, Pasadena, TX 225C. Protection to KROI and KKBQ are discussed below.

PROTECTION TO KROI AND KKBQ

KROI (33 kilometers at 150 degrees True) and KKBQ (7 kilometers at 142 degrees True) are second adjacent-channel stations to the proposed channel 223D facility. The 60 dBu F50,50 service contours of both stations extend well beyond the proposed 223D transmitter site. Using the well-established *Living Way Ministries* Methodology, no actual interference to any population is predicted to exist to KROI or KKBQ. Note that a rule waiver of Section 74.1204 for this second/third adjacent-channel protection using the well-established *Living Way Ministries* Methodology is respectfully requested if such a rule waiver is deemed necessary for protection to any station.

The F50,50 signal strength from KROI at the proposed 223D transmitter site is greater than 78 dBu (the "desired" signal for KROI). The F50,50 signal strength from KKBQ at the proposed 223D transmitter site is greater than 100 dBu (the "desired" signal for KKBQ). The second/third adjacent-channel protection of Section 74.1204 is an undesired-to-desired ("U/D") dB signal strength ratio of 40:1. Therefore, predicted interference to both KROI and KKBQ from the proposed 223D facility is a signal of greater than or equal to 118 dBu.

The 118 dBu free space loss signal from the proposed antenna extends 109 meters; and this potential interfering contour (using the free space field determination) does not at ground level (the clearance being more than 12 meters). Therefore, pursuant to Section 74.1204(d) of the FCC Rules, KROI and KKBQ are adequately protected by the proposed facility.