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ENGINEERING REPORT

K291CE, Suger Land, TX, Channel 291D FM Translator Minor Change

ENGINEERING STATEMENT

Applicant proposes this minor change modification to K226CG for a new transmitter site.

All required protections are met by contour non-overlap pursuant to Section 74.1204, with the exception of protection to KHCB-FM, Houston, TX, 289C and KOVE-FM, Galveston, TX, 293C. KHCB-FM and KOVE-FM are protected, as discussed below.

PROTECTION TO KHCB-FM and KOVE-FM

KHCB-FM 289C and KOVE-FM 293C are third adjacent-channel to the proposed channel 291D facility. The 60 dBu F50,50 service contour of both KHCB-FM and KOVE-FM extends well beyond the proposed 291D transmitter site. Using the well-established *Living Way Ministries* Methodology, no actual interference to any population is predicted to exist to KHCB-FM and KOVE-FM.

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 KOVE-FM at the proposed 291D transmitter site is greater than 78 dBu (the "desired" signal to KOVE-FM). The F50,50 signal strength from KHCB-FM at the proposed 291D transmitter site is greater than 90 dBu (the "desired" signal to KHCB-FM). 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 KOVE-FM and KHCB-FM from the proposed 291D facility is prevented with a signal of greater than or equal to 118 dBu.

The 118 dBu signal based on a free space field determination is predicted to extend out to 141 meters from the proposed 291D transmit antenna. The interfering signal level will not reach any point at ground level or at 2 meters above ground level. (The clearance is more than 300 meters.) Therefore, KHCB-FM and KOVE-FM are adequately protected by the proposed facility.