

**DELAWDER COMMUNICATIONS, INC.**

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**ENGINEERING REPORT**

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**K224FF, Kansas City, MO, Channel 224D Minor Change**

**ENGINEERING STATEMENT**

All contour non-overlap protection requirements are met with the exception of stations KCCV-FM (Olathe, KS, 222C3) and KMXV(FM) (Kansas City, MO, 227C0), discussed below.

**PROTECTION TO KCCV-FM and KMXV(FM)**

KCCV-FM (16 kilometers at 236 degrees True from proposed translator site) and KMXV (16 kilometers at 10 degrees True from proposed translator site) are second/third adjacent-channel to the proposed channel 224D facility. The 60 dBu F50,50 service contours of KCCV-FM and KMXV extend beyond the proposed 224D transmitter site. Using the well-established *Living Way Ministries* Methodology, no actual interference to any population is predicted to exist to KCCV-FM or KMXV.

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 KCCV-FM at the proposed 224D transmitter site is greater than 76 dBu (the "desired" KCCV-FM signal). The F50,50 signal strength from KMXV(FM) at the proposed 224D transmitter site is greater than 90 dBu (the "desired" KMXV signal). 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 the worst case protection requirement to KCCV-FM and KMXV from the proposed 224D facility is a signal of greater than or equal to 116 dBu.

The downward relative field of the antenna is at least 0.7 below 45 degrees downward. With a relative field adjustment of 0.7, the 116 dBu signal based on a free space field determination is predicted to extend out to no more than 78 meters from the proposed 224D transmit antenna. (The clearance is at least 10 meters to ground level). Therefore, pursuant to Section 74.1204(d) of the FCC Rules, KCCV-FM and KMXV are adequately protected by the proposed facility.