

**APPLICATION FOR MODIFICATION OF CONSTRUCTION PERMIT  
KCRA HEARST-ARGYLE TELEVISION, INC.  
KQCA-DT, STOCKTON, CALIFORNIA  
BPCDT-19991029AEZ**

**Compliance with 47 C.F.R. Section 73.623(a)**

The referenced construction permit specifies operation of KQCA-DT, Stockton, California, on channel 46 with effective radiated power (ERP) of 1,000 kilowatts, using a directional antenna, and with antenna height above average terrain (HAAT) of 530 meters. By the application of which this exhibit is part, permission is sought to operate KQCA-DT on channel 46, with ERP of 600 kilowatts, with nondirectional antenna, and HAAT of 587 meters.

To determine whether or not the proposed operation is consistent with FCC rules, use was made of the tv\_process program, the same program employed by the FCC staff in their determinations of rule compliance. No failures of compliance with any full service stations, either authorized or proposed, were found, but contour overlaps were found with two Class A low power stations: K46DR, Lakeport, California, and K47DQ, Sacramento, California.

Further studies were made to determine the actual impact of the proposed operation on these two Class A stations. As shown below, the proposed KQCA-DT operation will have either no impact at all or less than that resulting from the operation of KQCA-DT as presently authorized.

To determine the impact of the KQCA-DT proposal on the Class A stations, use was made of the EDX Signal program, version 7.1. The analysis for the relatively nearby operation of Class A station K47DQ, Sacramento, used FCC propagation analysis procedures. No irregular terrain features are to be found between the KQCA-DT tower location and the K47DQ service area. The desired-to-undesired (D/U) ratio employed to determine the extent of interference within the normally-protected 74 dB $\mu$  contour was -14 dB as specified in 73.623(c)(2) of FCC rules. Population figures are based on the 2000 U.S. Census. K47DQ signal strengths were median f(50,50). KQCA-DT signal strengths were the 10 percent of the time f(50,10).

The following tabulation shows the results of the analysis:

Population in the K47DQ protected contour: 568,985

Population loss from authorized KQCA-DT: 216,942 (38.1%)

Population loss from KQCA-DT proposal: 203,992 (35.9%)

To evaluate the impact of KQCA-DT operation on K46DR, Lakeport, California, the propagation analysis was based on the Longley-Rice Irregular Terrain Method, version 1.2.2. The distance from KQCA-DT to K46DR is 138.8 kilometers with considerable irregular terrain, particularly near K46DR. The D/U ratio employed in the study was +34 dB as specified in the rules for co-channel DTV-into-analog TV.

The results of this study were that, wherever K46DR had f(50,50) signal strength of 74 dB $\mu$  or greater, the K46DR signal strength was at least 34 dB greater than the f(50,10) signal strength from KQCA-DT operating as proposed; therefore, no interference is to be expected to the normally-protected signal of K46DR from KQCA-DT operating as proposed with ERP of 600 kilowatts.