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ENGINEERING REPORT

KWDA-LD, Dallas, TX LPTV (Channel 4D)

ENGINEERING STATEMENT

INTERFERENCE PROTECTION

This change from a Kathrein H-polarity omni antenna to a Jampro C-polarity omni antenna does not change either the antenna centerline or ERP; therefore, the TVStudy protection is not increased by this proposal.

ENVIRONMENTAL STATEMENT

This proposal does not involve a site location specified under Section 1.1307(a) through (a)(8) of the FCC Rules.

The proposed LPTV produces an ERP that is less than or equal to 3 kilowatts. Assuming: (a) a maximum ERP of 6 kilowatts (twice 3 kW to account for circular polarization); (b) a relative field of less than 0.3 in the critical downward angles; and (c) a distance of 120 meters from the lowest antenna element to 2 meters above ground level, the maximum power density is calculated as follows:

S = 33.4 (F)(F)(ERP) / [(R)(R)]

Where, S equals power density in uW/cm2
F equals the relative field factor
ERP equals the effective radiate power in watts
R equals the distance in meters

= 33.4 (0.3)(0.3)(6,000) / [(120)(120)]

= 1.2 uW/cm2

1.2 uW/cm2 represents less than 5% the uncontrolled power density limit (315.3 uW/cm2 for channel 14—channel 14 being the worst-case UHF channel or 200 uW/cm2

for VHF). The electromagnetic radiation from this proposed operation will not produce a value in excess of the radiation standard. The electromagnetic radiation from the proposed operation will not combine with other facilities on or near the structure to produce a significant change in value.

If this is a structure that may support various other operations, the applicant will cooperate with the other operators in establishing a plan for work done on the structure in close proximity to the existing antenna.