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ENGINEERING REPORT

W28EI-D, Wilmington, NC LPTV Channel Displacement to 22D Minor

ENGINEERING STATEMENT

DISPLACEMENT QUALIFICATION

This LPTV station qualifies for channel displacement due to interference that is predicted to be received from WUNM-TV, Jacksonville, NC 28D (as re-packed from channel 19)—a predicted interference level of 16.3%. Because this is above the 2% de minimus allowed level, W28EI-D qualifies for channel displacement.

INTERFERENCE PROTECTION RESULTS

A 0.1 kilometer step is requested and used for the TVStudy run.

The output from the FCC's current "TVStudy" software is attached demonstrating full compliance with the FCC's protection requirements.

Consent Agreements required for grant of this application: NONE

The applicant accepts any interference that is predicted to exist to the proposed facility by any licensed, authorized or previously proposed primary TV station. The applicant also accepts any interference that is predicted to exist to the proposed facility by any secondary TV facility that is given preferential status by the FCC over the Applicant's herein proposed facility.

ENVIRONMENTAL STATEMENT

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

Two stacked ELTI panels (installed in-line; not skewed) are proposed that will

reduce the down-ward radiation and increase the system antenna gain to approximately 10.5 dB. The proposed LPTV produces an ERP that is equal to or less than 0.2 kilowatts. Assuming: (a) a maximum ERP of 0.2 kilowatts; (b) a relative field of less than 0.2 in the critical downward angles; and (c) a distance of at least 7 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 (0.2)(0.2)(200) / [(7)(7)]

= 5.5 uW/cm2

5.5 uW/cm2 represents less than 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.