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# ENGINEERING REPORT

## W41EC-D, Valdosta, GA LPTV Channel Displacement to 23D Minor

## ENGINEERING STATEMENT

### DISPLACEMENT QUALIFICATION

This LPTV CP is above channel 36 and, therefore, qualifies for channel displacement.

### INTERFERENCE PROTECTION RESULTS

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 Dielectric TUA panels (installed in-line; not skewed) are proposed that will reduce the down-ward radiation and increase the system antenna gain to approximately 13.5 dB. The proposed LPTV produces an ERP that is equal to or less than 15 kilowatts. Assuming: (a) a maximum ERP of 15 kilowatts; (b) a relative field of less than 0.2 in the critical downward angles; and (c) a distance of at least 9 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)(15,000) / [(9)(9)]

= 247.4 uW/cm2

247.4 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.