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ENGINEERING REPORT

W30DU-D, Sutton, WV LPTV (Proposing Channel 25)

ENGINEERING STATEMENT

DISPLACEMENT QUALIFICATION

This licensed LPTV station qualifies for channel displacement due to interference that is predicted to be received from WDBJ(TV), Roanoke, VA 30D (as re-packed from channel 18). The channel 30 CP receives an interference level of 2.12% from WDBJ(TV). Because this is above the 2% de minimus allowed level, W30DU-D qualifies for channel displacement.

INTERFERENCE PROTECTION RESULTS ON NEW CHANNEL

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 8 kilowatts. Assuming: (a) a maximum ERP of 8 kilowatts; (b) a relative field of less than 0.2 in the critical downward angles; and (c) a distance of 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

$$= 33.4 (0.2)(0.2)(8,000) / [(9)(9)]$$

$$= 132.0 \text{ uW/cm}^2$$

132.0 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.