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**ENGINEERING REPORT**

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**WNDC-LP, Salisbury, MD LPTV (Proposing Channel 28)**

**ENGINEERING STATEMENT**

**DISPLACEMENT QUALIFICATION**

This licensed LPTV station qualifies for channel displacement due to interference that is predicted to be caused to KJWP(TV), Wilmington, DE channel 2 (LMS file number 35792) from the channel 2 digital authorized WNSC-LP facility. The FCC's current "TVStudy" software predicts 0.99 percent of increased interference to the facility of 35792 of KJWP. Also, the WNDC-LP analog licensed channel 11 facility is extremely low-powered and cannot convert to an equivalent max-power LPTV facility on channel 11. (This channel 28 proposal is for a maximum omni ERP of 15 kW.)

**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.

*Note: By separate attachment to this application, a waiver of Section 73.3517 – The Contingent Application Rule—is being requested regarding the predicted interference to the licensed WFPT(TV), Frederick, MD channel 28 Digital facility and also to the licensed WCPB(TV), Salisbury, MD channel 28 Digital facility. WFPT is staying on channel 28 BUT its major change CP (LMS file number 29876) is protected. WCPB is being re-packed to channel 16.*

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. Additionally, as deemed necessary, the applicant

may agree to consent to interference (either by a separate statement submitted with this initial application or by an amendment to this application) from another LPTV displacement application that has been submitted in the same filing window.

## 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 equal to or less than 15 kilowatts. Assuming: (a) a maximum ERP of 15 kilowatts; (b) a relative field of less than 0.3 in the critical downward angles; and (c) a distance of at least 200 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/cm<sup>2</sup>  
                      F equals the relative field factor  
                      ERP equals the effective radiate power in watts  
                      R equals the distance in meters

$$= 33.4 (0.3)(0.3)(15,000) / [(200)(200)]$$

$$= 1.1 \text{ uW/cm}^2$$

1.1 uW/cm<sup>2</sup> represents less than 5% the uncontrolled power density limit (315.3 uW/cm<sup>2</sup> for channel 14—channel 14 being the worst-case UHF channel or 200 uW/cm<sup>2</sup> 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.