

**DELAWDER COMMUNICATIONS, INC.**

P.O. Box 1095  
Ashburn, Virginia 20146-1095  
(703) 299-9222

**ENGINEERING REPORT**

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**W17DU-D, to Lewisburg, PA LPTV 17D Site-move Minor**

**ENGINEERING STATEMENT**

**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.

Note that the LMRS LMRS fixed location stations are all secondary to LPTV with the exception of WQMC383 (location 6). This channel 18 adjacent-channel location is well beyond the proposed 72 dBu F50,10 contour. The mobile locations of this LMRS callsign are protected within 128 kilometers of Washington, DC coordinates N 38-53-51.4; W 77-00-31.9. The proposed channel 17D 72 dBu F50,10 contour does not come close this protection arc; so WQMC383 is adequately protected.

**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 0.5 kilowatts. Assuming: (a) a maximum ERP of 0.5 kilowatts; (b) a relative field of less than 0.3 in the critical downward angles; and (c) a distance of at least 3 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

$$= 33.4 (0.3)(0.3)(500) / [(3)(3)]$$

$$= 167.0 \text{ uW/cm}^2$$

167.0 uW/cm<sup>2</sup> represents less than 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.