

**DELAUDER COMMUNICATIONS, INC.**

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**ENGINEERING REPORT**

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**W29EO-D, Crozet, VA LPTV Channel Displacement to 31D Minor**

**ENGINEERING STATEMENT**

**DISPLACEMENT QUALIFICATION**

This licensed LPTV station qualifies for channel displacement due to interference that is predicted to be caused from WCVW, Richmond, VA channel 29D (as re-packed from channel 44). The FCC's current "TVStudy" software predicts 3.95 percent of increased interference to the authorized W29EO-D facility by the licensed WCVW channel 29 facility. Thus, W29EO-D 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.

The proposed LPTV produces an ERP that is equal to or less than 1 kilowatt. Assuming: (a) a maximum ERP of 1 kilowatt; (b) a relative field of less than 0.3 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/cm<sup>2</sup>  
                      F equals the relative field factor  
                      ERP equals the effective radiate power in watts  
                      R equals the distance in meters

$$= 33.4 (0.3)(0.3)(1,000) / [(9)(9)]$$

$$= 37.1 \text{ uW/cm}^2$$

37.1 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.