

**DELAWDER COMMUNICATIONS, INC.**

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**ENGINEERING REPORT**

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**K47KC-D, Romeo, CO Displacement to Channel 27**

**ENGINEERING STATEMENT**

This applicant is being submitted for a channel displacement to channel 27 that is necessary in order to clear the licensed channel 47 for T-Mobile use by October 31, 2017. All protection requirements are met by this proposal for channel 27.

This proposal does not involve a site location specified under Section 1.1307(a) through (a)(8) of the FCC Rules.

The LPTV stations of the Applicant at this location produce an ERP that is less than or equal to 1 kilowatt. Assuming: (a) a maximum ERP of 1 kilowatt; (b) a relative field of less than 0.7 in the critical downward angles; and (c) a distance of at least 16 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

$$= 33.4 (0.7)(0.7)(1,000) / [(16)(16)]$$

$$= 63.9 \text{ uW/cm}^2$$

63.9 uW/cm<sup>2</sup> represents less than the uncontrolled power density limit (315.3 uW/cm<sup>2</sup> for UHF; 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.