

**DELAWDER COMMUNICATIONS, INC.**

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**ENGINEERING REPORT**

St. James, MN LPTV

**ENVIRONMENTAL STATEMENT**

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

All analog and digital LPTVs at this location combine to produce an ERP that is less than 150 kilowatts. Assuming: (a) a maximum ERP of 150 kilowatts and circular polarization (for 330 kW total with aural carrier for analog); (b) a relative field of less than 0.3 in the critical downward angles; and (c) a distance of at least 80 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

$$= 33.4 (0.3)(0.3)(330,000) / [(80)(80)]$$

$$= 155.0 \text{ uW/cm}^2 \text{ (combined worst-case for all LPTVs at this site)}$$

155.0 uW/cm<sup>2</sup> represents less than the uncontrolled power density limit (315.3 uW/cm<sup>2</sup> for channel 14). (This site supports LPTVs located within the UHF TV spectrum.) 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.