

**DELAWDER COMMUNICATIONS, INC.**

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

**ENGINEERING REPORT**

---

**Carrizo Springs, TX 295A Initial Long-Form Application**

All Section 73.207 separation requirements are met with the exception of a 1.3 km short spacing to KTKX(FM), Terrell Hills, TX 294C0 and to XHPNS(FM) Piedra Negros, CI 296AA. A map is attached that shows non-contour overlap (based on 73.215) to these two FM facilities.

**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 FM facility produces an ERP that is equal to or less than 6 kW kilowatts. Assuming: (a) a maximum ERP of 12 kilowatts (twice 6 kw for circular polarization); (b) a relative field of less than 0.2 in the critical downward angles; and (c) a distance of at least 40 meters from the lowest antenna element to 2 meters above the *top floor of the building*, 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

$$= 33.4 (0.2)(0.2)(12,000) / [(40)(40)]$$

$$= 10.0 \text{ uW/cm}^2$$

10.0 uW/cm<sup>2</sup> represents less than the uncontrolled power density limit (200 uW/cm<sup>2</sup> for FM). 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.