

**DELAUDER COMMUNICATIONS, INC.**

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**ENGINEERING REPORT**

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**KZAB-LP, Abilene, TX LPTV (Proposing Channel 22)**

**ENGINEERING STATEMENT**

This is a change to the antenna only and no change in interference based on the TVStudy program will result by this change.

**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 15 kilowatts. Assuming: (a) a maximum ERP of 30 kilowatts (twice 15 kW for circular polarization); (b) a relative field of less than 0.15 in the critical downward angles; and (c) a distance of at least 9 meters from the antenna centerline 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

$$= 33.4 (0.15)(0.15)(30,000) / [(9)(9)]$$

$$= 278.3 \text{ uW/cm}^2$$

278.3 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.