

DELAUDER COMMUNICATIONS, INC.

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ENGINEERING REPORT

Crystal Beach, TX 268A Initial Long-Form Application

All Section 73.207 separation requirements are met with the exception of a 5.5 km short spacing to KAYD-FM, Silsbee, TX 269C3 (a Section 73.215 classified facility). A map is attached that shows non-contour overlap (based on 73.215) to this station.

It is noted that the 70 dBu F50,50 contour extends further West along the peninsula in the direction of Crystal Beach than does the 16.2 km radius circle from the reference location.

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 50 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/cm²
 F equals the relative field factor
 ERP equals the effective radiate power in watts
 R equals the distance in meters

$$= 33.4 (0.2)(0.2)(12,000) / [(50)(50)]$$

$$= 6.4 \text{ uW/cm}^2$$

6.4 uW/cm² represents less than the uncontrolled power density limit (200 uW/cm² 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.