

DELAWDER COMMUNICATIONS, INC.

P.O. Box 1095

Ashburn, Virginia 20146-1095

(703) 299-9222

ENGINEERING REPORT

Obidia Porras

K26GN, Glendale, CA: Channel 40D STA Support

EXHIBIT 22

LPTV STA ENGINEERING SUPPORT

1. Obidia Porras ("Applicant") is the licensee of K26GN, Lancaster, CA, analog channel 26. Applicant has a pending displacement application for channel 40 as digital that proposes a new transmitter site and specifies Glendale, CA as the community of license (FCC File No. BDISDTL-20081205AFB). By an amendment to BDISDTL-20081205AFB, Applicant proposes improved transmit facilities for channel 40D from the proposed transmitter site. This engineering statement supports a request for Special Temporary Authority ("STA") to operate on channel 40 digital with the same facilities as proposed by the amended BDISDTL-20081205AFB.

2. Previously, full-power station KTBN-TV, Santa Ana, CA, was authorized for service on analog Channel 40 from virtually the same Mt. Wilson transmitter site as proposed by Applicant herein. Figure 1, attached, is a map showing that the 64 dBu F50,50 contour of the proposed facility for K26GN is located completely inside the 64 dBu F50,50 contour of the previously-licensed KTBN-TV facility. The 41 dBu F50,90 contour for the proposed facility is also shown in Figure 1 to be located within the KTBN-TV 64 dBu F50,50 service contour. (The 41 dBu F50,90 contour is used since it is the applicable contour for full-service DTV operations. Obviously, the 51 dBu F50,90 contour typically used for LPTV would be located within this 41 dBu contour.) Because (i) the service "footprint" of the proposed facility does not extend beyond that of the previously-licensed KTBN-TV facility, and (ii) the proposed maximum ERP is less than 10 kW), this proposal does not require re-coordination with Mexico.

3. Attached as Figure 2 are the OET-69 study results for the proposed facility (as the referenced station) as determined on a Sun Computer using a Solaris (Unix-based) operating system and using the same OET-69 software as developed for use by the FCC. (According to the software developer, the program used herein provides identical results as the FCC's OET-69 processing program.) All studies are conducted in accordance with current FCC Rules and Regulations. As demonstrated by Figure 2, the proposed facility adequately protects all US broadcast stations as required by the FCC Rules, with the exception of adjacent-channel station KVEA, Corona, CA, 39D. (0.58% increased interference is predicted when the stringent mask is used—above the 0.5% de minimis standard). However, as demonstrated by Figure 3, attached, KVEA is adequately protected when a full-service mask is used. (The predicted interference to KVEA is reduced to 0.31%—below the 0.5% de minimis standard.) Accordingly, in view of the predicted interference caused to KVEA when the stringent mask is deployed, use of a full-service mask instead of a stringent mask, is proposed.

4. To the extent that waiver of 47 CFR Sections 74.703 and 74.706 may be

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required for use of a full-service mask, such a waiver is respectfully requested. If a waiver is not deemed necessary, nonetheless, the Applicant will accept a condition on its authorization requiring use of a full-service adjacent channel mask filter.

5. The applicant accepts any interference that is predicted to exist to the proposed facility by any licensed, authorized or previously-proposed primary TV station. The applicant also accepts any interference that is predicted to exist to the proposed facility by any secondary TV facility that is given preferential status by the FCC over the Applicant's herein proposed facility.

Environmental Statement

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

7. Assuming: (a) a maximum ERP of 10 kilowatts or less and circular polarization (for 20 kW total); (b) a relative field of less than 0.2 in the critical downward angles; and (c) a distance of at least 36 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/cm²
F equals the relative field factor
ERP equals the effective radiate power in watts
R equals the distance in meters

$$= 33.4 (0.2)(0.2)(20,000) / [(36)(36)]$$

$$= 20.6 \text{ uW/cm}^2$$

8. A power density of 20.6 uW/cm² represents less than the uncontrolled power density limit. The electromagnetic radiation from this proposed operation will not

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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.

FIGURE 1: MAP SHOWING COVERAGE CONTOUR COMPARISON OF PREVIOUS AND PROPOSED CHANNEL 40 USE

