

TECHNICAL EXHIBIT  
DISPLACEMENT APPLICATION  
STATION K08FR (FACILITY ID 48577)  
AZTEC, NEW MEXICO  
CH 22 1.3 KW (MAX-DA)

Technical Narrative

This Technical Exhibit supports a displacement application for TV translator station K08FR at Aztec, New Mexico. Station K08FR is licensed to operate on channel 8 with a directional antenna maximum effective radiated power (ERP) of 0.038 kW and an antenna height above mean sea level (RCAMSL) of 1786 meters (BLTTV-19870512ID).

Station KOFT-DT is authorized to operate on digital channel 8 at a location 21 kilometers from the K08FR transmitter site (BMPCDT-20041028AGN). KOFT-DT currently operates under special temporary authority (STA) on channel 8 at a location only 16 kilometers from the K08FR site. Therefore, K08FR's operation on channel 8 has been displaced by the implementation of the digital KOFT operation on channel 8.

Proposed Facilities

This application proposes operation on channel 22 with a new directional antenna at the current transmitter site. The transmitter site coordinates remain: 36-46-20 N, 108-01-42 W (NAD 27). An Andrew (AND) AL8, directional antenna oriented at 10 degrees True, with a maximum ERP of 1.3 kW and antenna RCAMSL of 1786 meters is proposed.

The existing 9 meter structure (30 feet) does not require registration as the FCC's TOWAIR program indicates that it passes the slope by 58 meters to the nearest airport 5.6 kilometers away.

Figure 1 is a map showing the licensed 68 dBu and proposed 74 dBu coverage contours. As can be seen on the map, there will be contour overlap with both contours.

### Allocation Considerations

A study has been conducted to assure that the proposal will not create prohibited interference with other licensed, authorized or pending analog or digital TV, LPTV/translator and Class A TV stations. Prohibited contour overlap is predicted to occur to the following station:

K21AX	21	FARMINGTON	NM	BLTT	19910307JJ
K21AX	21	FARMINGTON	NM	BPTT	20051114ANI
K23BT	23	FARMINGTON	NM	BLTT	19910425IN

Using the procedures outlined in the FCC's OET-69 Bulletin, a standard 1 km cell size and 1990 Census, there is no prohibited interference caused to any of the above mentioned stations. If necessary, a waiver of the FCC rules is respectfully requested based on use of the procedures outlined in the FCC's OET-69 Bulletin to the remaining LPTV/translator stations.

The applicant recognizes the proposal is secondary to authorized full-service analog and DTV operations. The applicant understands that it must correct and/or eliminate prohibited interference that may result from its proposed operation.

### Environmental Considerations

The proposed K08FR facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the antenna is located 6 meters above ground level. The proposed ERP is 1.3 kW. Based on a conservative downward relative field of 0.35 (see Figure 2), the calculated power density at a point 2 meters (6.6 feet) above ground level will not exceed  $0.1663 \text{ mW/cm}^2$ , which is 48% of the FCC's recommended limit of  $0.35 \text{ mW/cm}^2$  for channel 22 for an "uncontrolled" environment. Station K10CG, located on the same supporting structure, is the only other known station in the area. K10CG operates on analog channel 10 with a maximum ERP of 0.087 kW. Based on a conservative downward relative field of 0.5

for the K10CG antenna, the calculated power density at a point 2 meters above ground level will not exceed  $0.0227 \text{ mW/cm}^2$ , which is 11% of the FCC's recommended limit of  $0.2 \text{ mW/cm}^2$  for channel 10 for an "uncontrolled" environment. Thus, the combined power density is calculated to be less than 60% of the FCC's recommended limit.

Access to the transmitting site will be restricted and appropriately marked with warning signs. As this is a multi-user site an agreement will restrict site access. In the event that workers or other authorized personnel enter restricted areas or climb the tower, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down.

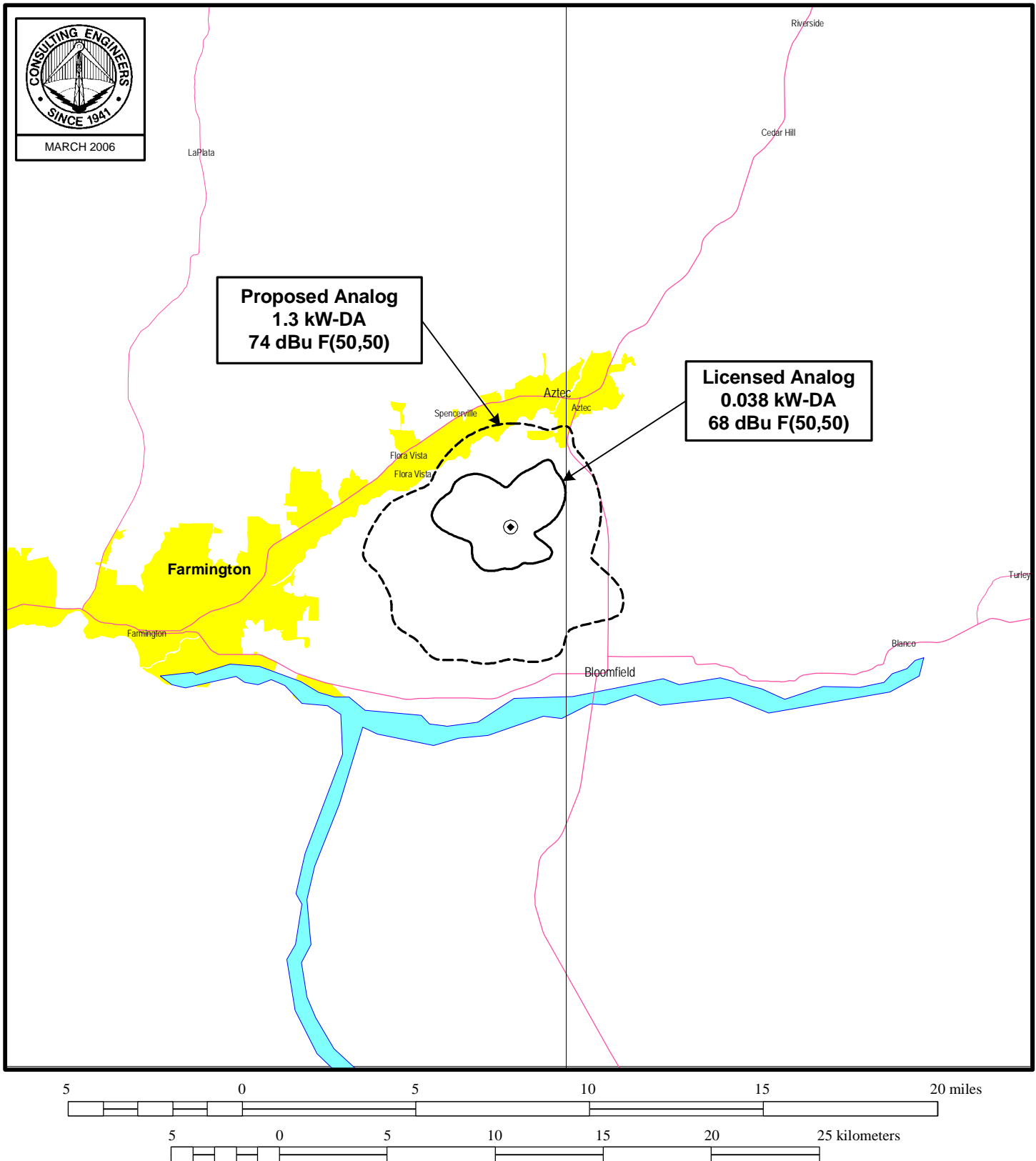
It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure.



Jonathan N. Edwards  
du Treil, Lundin & Rackley, Inc.  
201 Fletcher Avenue  
Sarasota, Florida 34237  
(941) 329-6000

March 31, 2006

Figure 1



## PREDICTED COVERAGE CONTOURS

STATION K08FR

AZTEC, NEW MEXICO

du Treil, Lundin & Rackley, Inc Sarasota, Florida

**ELEVATION PATTERN**

Type:

AL8

Channel:

Directivity:

Numeric

dBd

Location:

Main Lobe:

8.68

9.39

Beam Tilt:

-1.75

Horizontal:

7.30

8.63

Polarization:

Horizontal

