

Engineering Statement
In Support of a
Minor Change Application to
Change Site and Increase Antenna Height
NCFM Station KONQ, Dodge City, KS
FCC Facility ID No. 17053
KANZA Society Inc.

NCFM Station KONQ, FCC Facility ID No. 17053, channel 220A, Dodge City, KS, owned by licensee KANZA Society Inc. ("KANZA"), is presently licensed collocated with AM station KDCC, 1550 kHz, Dodge City, KS. This site has been sold by the owner and KANZA given notice to vacate. As such, a new site is needed. KONQ is at present silent pending relocation to a new site, reference 1800B3-KC, FCC File No. 0000218826.

A new site on which is an existing guyed tower owned by Victory Electric Cooperative (ASRN 1030752) is located 0.5 km north of the existing site. The tower is 112.7 meters in overall height (904.7 meters AMSL). KANZA has obtained permission from Victory to file the instant application, and a lease agreement will be executed upon grant.

KANZA intends to side mount a two-bay horizontally-polarized antenna on this tower at a radiation center of 78.6 meters AGL (870.6 meters AMSL, 99.6 meters AAT).

A spacing study was run from the new site coordinates and it was found that co-channel KZGC-FM, 220A, Garden City, KS (Facility ID No. 174936) is the primary consideration in terms of FM contour protection. A contour overlap study was run with the KONQ and KZGC-FM licensed facilities. This study revealed that there is existing overlap of the licensed KONQ 60 dBu F(50, 50) contour by the licensed KZGC-FM 40 dBu F(50, 10) contour.

In accordance with 47 C.F.R. §73.509, the ERP of the proposed relocated facility was adjusted so that:

- The total area of overlap with KZCG-FM would not be increased;
- The area of overlap with KZGC-FM does not move significantly closer to the station receiving the overlap (KONQ); and,
- No area of overlap would be created with any station with which overlap does not now exist.

The resulting ERP with which the above criteria were all met was found to be 670 watts. The proposed KONQ 60 dBu F(50, 50) contour and 40 dBu F(50, 10) contour are wholly encompassed within the existing respective licensed contours. The results of the contour protection study are shown in Figure 2 herein.

A channel 6 DTV station, KBSD-DT, is located 32.2 km from the proposed site. KONQ was originally licensed on 4/26/1978, well in advance of the 12/31/1984 cutoff date specified in 47 C.F.R. §73.525(b). The proposed new site will not reduce the spacing to KBSD-DT – the spacing would increase by 0.2 km, and the contour distances toward KBSD-DT will not be increased. No increase in the ratio of vertically-

horizontally-polarized transmissions is proposed herewith. As such, as noted in §73.525(b)(1), the changes proposed herein are not subject to §73.525.

The proposed facility will produce a minimum field strength of greater than 1 mV/m (60 dBu) over all of the community of license, in excess of the 50 percent community of license or 50 percent population within the community required by 47 C.F.R. §74.515.

An RF power density study was run using the FCC's FM Model program. Input parameters were:

- Channel 220 (91.9 MHz)
- Antenna Type: EPA Type 1: Ring-and-Stub or "Other" (ERI FM-22A or equiv.)
- Height: 78.6 meters
- Distance: 100 meters
- ERP(H): 670 watts
- ERP(V): 0 watts
- Number of Elements: 2
- Spacing: 1λ

The results of the study are displayed in Figure 1 below, which show that at no location on the ground within 100 meters of the tower would the RF power density exceed the General Population/Uncontrolled Exposure limit of 0.2 mW/cm^2 or the Occupational/Controlled Exposure limit of 1.0 mW/cm^2 .

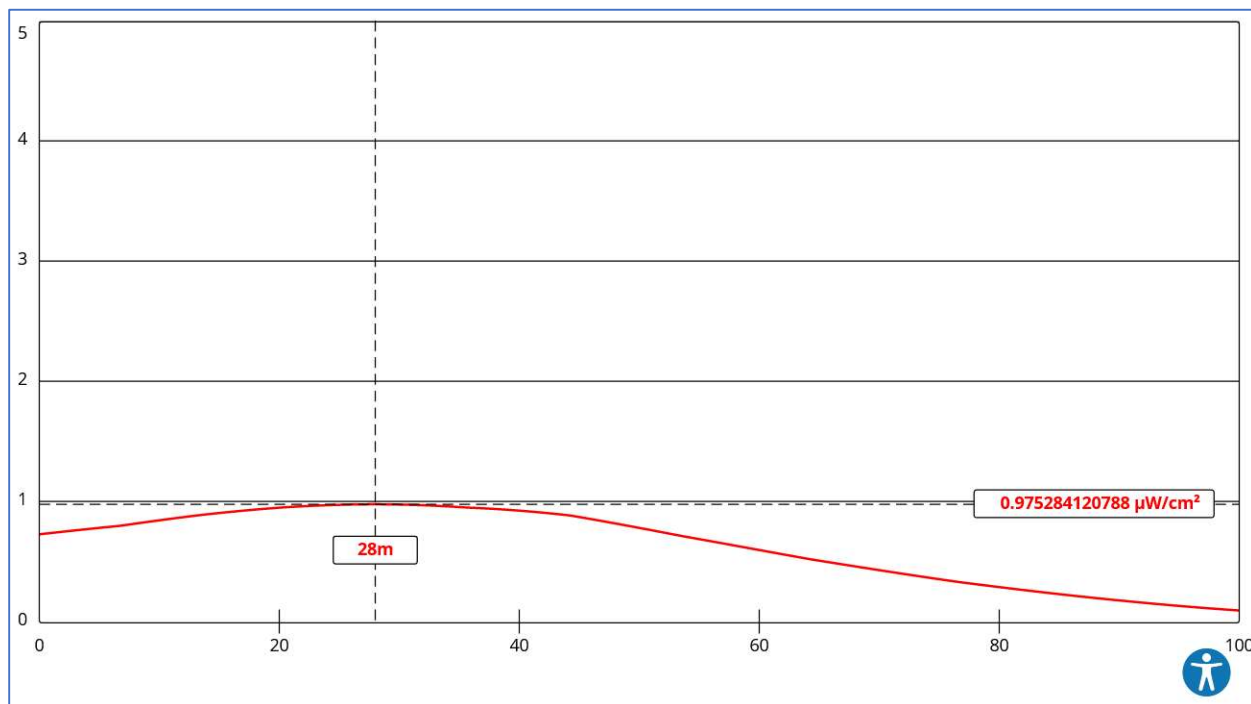


Figure 1 - FM Model RF Power Density Study

The instant application proposes no new tower construction nor a significant modification of an existing structure. With ground-level RF power densities well below both controlled and uncontrolled limits, a

Commission grant of Authorization for this location would not be an action which may have a significant environmental effect.

While the Victory tower is located 0.5 km from the KDCC directional array, it is not base insulated, nor is it presently detuned, and no change is proposed herewith that would alter the tower's physical height by 5 electrical degrees or more at the AM frequency. As such, in accordance with 47 C.F.R. §1.30002(g), it is presumed to have no significant effect on the AM station.

KANZA certifies that the proposed facility complies with the applicable engineering standards and assignment requirements of 47 C.F.R. Sections 73.203, 73.207, 73.213, 73.315, 73.509, 73.515, 73.525, and 73.1125.

All the above representations are true and correct to the best of my knowledge.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Cris Alexander", is positioned above a horizontal blue line.

Cris Alexander, CPBE, AMD, DRB
August 22, 2023

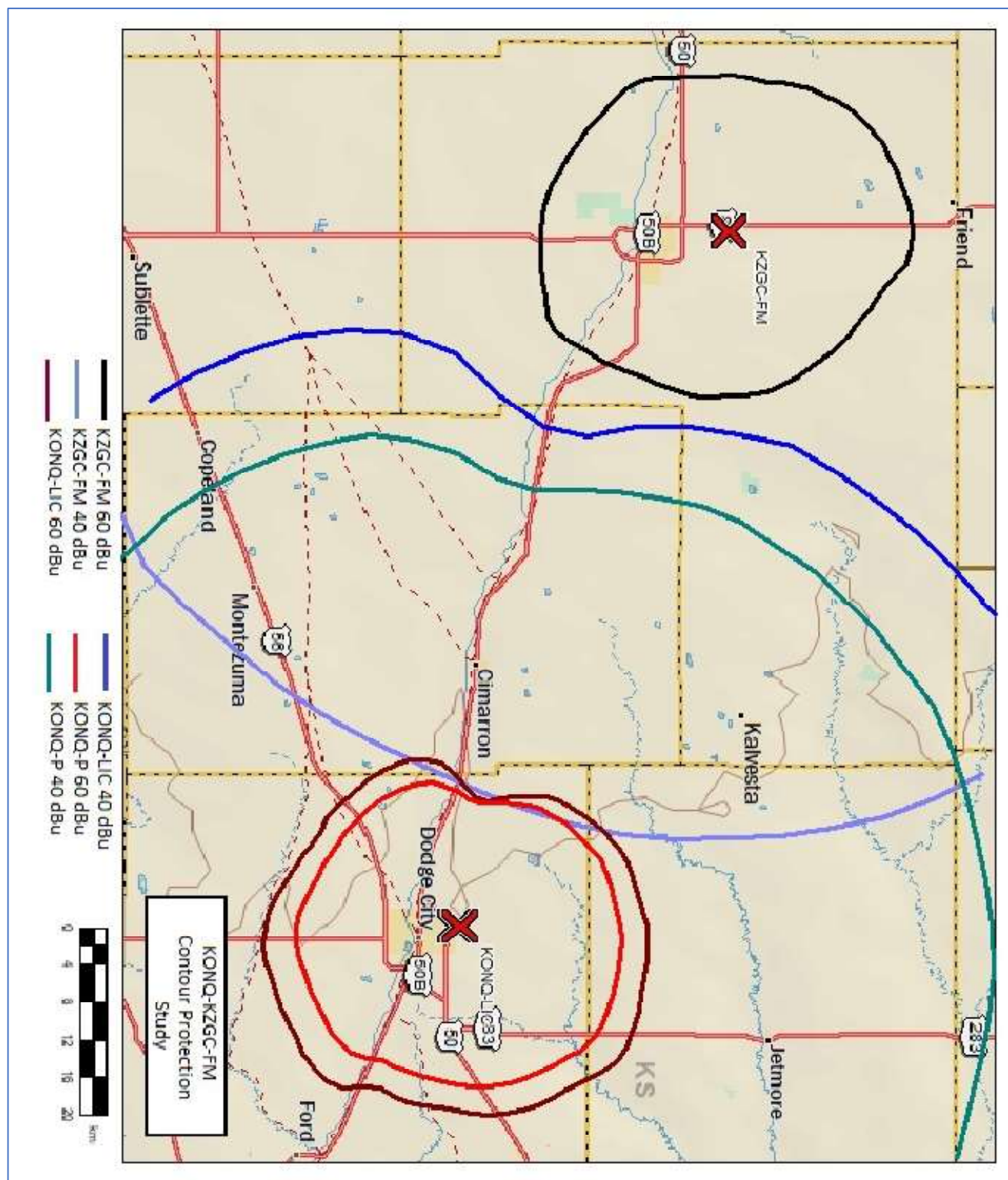


Figure 2 -- Contour Protection Study