

EXHIBIT A

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of RIVER CITY BROADCASTING CORPORATION, licensee of Low Power Television Station KCTU-LP, Channel 55 in Wichita, Kansas, in support of this Application for Construction Permit to specify a change in channel due to the FCC's reclamation of the Channel 55 spectrum for future auction.

It is proposed to mount a standard Scala omnidirectional antenna on the side of an existing tower on top of a building.

We conducted a computer analysis of the interference situation for the proposed facility, the results of which are shown in Exhibit B. The study is based on contour protection requirements of Sections 74.705, 74.706, and 74.707 of the FCC's Rules with respect to analog full-power, digital full-power, and low power television stations, respectively. It concludes that the facility fails to meet these requirements to four facilities.

We then conducted a detailed interference study using the Longley-Rice methodology contained in the Commission's *OET Bulletin No. 69*, with respect to the potentially affected facilities. The software utilizes a 2-square kilometer cell size, calculates signal strength at 1.0 kilometer increments along each radial studied, and employs the 2000 U.S. Census to count population within cells. In addition, the program does not attribute interference to the proposed facility in cells within the affected station's protected contour where interference from another source (other than proposed KCTU-LP) already is predicted

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to exist (also known as "masking"). The results of these studies are provided in Exhibit C and are summarized in a tabulation as Exhibit D. The studies conclude that the facility proposed herein causes no significant interference to any of the stations of concern.

As a result, waivers of Sections 74.705 and 74.706 of the Commission's Rules with respect to interference to the various analog and digital full-power facilities, respectively, are requested and believed to be justified based on the aforementioned Longley-Rice studies.

The instant application does not propose to increase the height of the existing structure. As a result, the FAA has not been notified of this application. In addition, and for the same reason, FCC tower registration is not required.

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Wichita facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 3.0 kw, an effective antenna height of 34.7 meters above the roof, and assuming a vertical relative field value of 20 percent at the steeper elevation angles for the proposed antenna, maximum power density two meters above roof-level of  $0.0018 \text{ mw/cm}^2$  is calculated to occur near the base of the tower. Since this is only 0.9 percent of the  $0.2 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) for a facility operating on Channel 5 (76-82 MHz), a grant of this proposal may be considered a minor environmental action with respect to public exposure to nonionizing electromagnetic radiation.

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Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive nonionizing radiation.

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.



JEFFREY S. FISHER

October 4, 2002