

EXHIBIT A

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of the licensee of television translator K33GU, Channel 33 in St. Louis, Missouri, in support of its Application for Construction Permit to specify digital operation on Channel 33 from the present site, as a "flashcut" proposal.

It is proposed to mount an Andrew AL8 omnidirectional antenna, at the 169-meter level of an existing 338-meter communications tower. An interference study is provided in Exhibit B, and a power density calculation follows as Exhibit C.

Because no change in the overall height or location of the existing tower is proposed, the FAA has not been notified of this application. The FCC issued Antenna Structure Registration Number 1020785 to this tower.

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.



KYLE T. FISHER

June 26, 2012

LONGLEY-RICE INTERFERENCE STUDY  
PROPOSED K33GU-D  
CHANNEL 33 – ST. LOUIS, MISSOURI

We conducted a detailed interference study using the Longley-Rice methodology contained in the Commission's *OET Bulletin No. 69*, with respect to all facilities of concern. The software utilizes a 1-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 protected contour of the station under study where interference from another source (other than the proposed K33GU-D facility) already is predicted to exist (also known as "masking"). The results of this study are provided in Exhibit B-2. It concludes that the facility proposed herein causes no significant new interference to any of the potentially affected stations.

As a result, it is believed that the proposed digital K33GU-D facility complies with the requirements of Sections 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030 of the Commission's Rules.

INTERFERENCE SUMMARY

PROPOSED K33GU-D  
CHANNEL 33 – ST. LOUIS, MISSOURI

<u>Call Sign</u>	<u>Status</u>	<u>City, State</u>	<u>Ch.</u>	<u>Longley-Rice Service Population</u>	<u>Unmasked Interference From Proposed Facility</u>	<u>%</u>
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[NO STATIONS AFFECTED]

POWER DENSITY CALCULATION

PROPOSED K33GU-D  
CHANNEL 33 – ST. LOUIS, MISSOURI

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this St. Louis facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 15.0 kW, an antenna radiation center 169 meters above ground, and the specific elevation pattern of an Andrew AL8 antenna, maximum power density two meters above ground of  $0.00017 \text{ mW/cm}^2$  is calculated to occur 150 meters from the base of the tower. Since this is less than 0.1 percent of the  $0.39 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 33 (584-590 MHz), this proposal may be excluded from consideration with respect to public exposure to nonionizing electromagnetic radiation.

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.

**CONTOUR POPULATION  
2010 U.S. CENSUS DATA  
2,355,475**



**51 DBU**

**EXHIBIT D  
PREDICTED SERVICE CONTOUR  
PROPOSED K33GU-D  
CH. 33 - ST. LOUIS, MISSOURI**

