

**MINOR CHANGE APPLICATION**  
**NEW AUXILIARY FM ANTENNA**  
**WJAG INCORPORATED**  
**KEXL (FM) RADIO STATION**  
**CH 294C1 - 106.7 MHZ - 55.0 KW**  
**NORFOLK, NEBRASKA**  
**February 2008**

**EXHIBIT B**

**Radio Frequency Assessment**

A study has been made to determine whether this proposal is in compliance with 47 C.F.R. §1.1307 of the Commission's rules and with OET Bulletin #65, dated August 1997 ("Bulletin"), regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. This study considers all nearby contributing stations<sup>1</sup> and utilizes the appropriate formulas contained in the OET Bulletin.<sup>2</sup>

The proposed KEXL antenna system will be mounted with its center of radiation 120.4 meters (395.0 feet) above the ground at the tower location and will operate with an effective radiated power of 55.0 kilowatts in the horizontal and vertical planes (circularly polarized). At 2.0 meters above the ground at the base of the tower, the height of an average person, the KEXL auxiliary antenna system will contribute  $0.1578 \text{ mw/cm}^2$ .<sup>3</sup> Based on exposure limitations for a controlled environment, 15.8% of the allowable ANSI limit is reached at 2.0 meters above the

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- 1) The proposed KEXL auxiliary antenna will be located on the same tower structure as the KEXL main antenna. However, the KEXL main is not considered herein as a contributor, since the KEXL main and KEXL auxiliary would not be energized at the same time.
  - 2) The contributions of the FM stations were calculated with the FMModel program. The EPA single bay dipole antenna was used for calculations unless otherwise noted.
  - 3) This level of contribution occurs at 32.0 meters out from the tower and is considered worst case.

ground at the base of the tower. For uncontrolled environments, 78.5% of the ANSI limit is reached at 2.0 meters above the ground at the base of the tower.

Since this level for uncontrolled environments is below the 100% limit defined by the Commission, the proposed KEXL auxiliary antenna is believed to be in compliance with the radio frequency radiation exposure limits, as required by the Federal Communications Commission. Further, WI will post warning signs in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, WI will reduce the power of the proposed facility or cease operation in cooperation and coordination with other tower users, as necessary, to protect persons having access to the site, tower or antenna from radio frequency radiation in excess of FCC guidelines.