

**MINOR CHANGE APPLICATION**  
**NEW AUXILIARY FM ANTENNA**  
**KJUL LICENSE, LLC**  
**KFRH RADIO STATION**  
**CH 274C - 102.7 MHZ - 12.5 KW**  
**BOULDER CITY, NEVADA**  
**July 2009**

**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 and utilizes the appropriate formulas contained in the OET Bulletin.<sup>1</sup>

It is noted that the proposed KFRH auxiliary is to be located at a site with numerous other facilities and multiple towers in a de facto tower farm located at Black Mountain, Nevada, outside of Las Vegas. The location is far removed from any populated areas, and the terrain around the site prevents casual trespass onto the site. Access to the site is via a single access road, which is gated and locked at numerous places along the access road to prevent the general public from access to the site or the immediate area around the towers. The most distant gated access point from the site is located approximately 1,754.2 meters (1.09 miles) from the KFRH tower. As such, the exposure limitations for an uncontrolled environment will be calculated at the gated access point.

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1) The FMModel Program was used for all calculations for the FM station contributions. The EPA single bay dipole antenna was used unless otherwise noted.

The proposed KFRH auxiliary antenna system will be mounted with its center of radiation 30.48 meters (100.0 feet) above the ground at the existing tower location and will operate with an effective radiated power of 12.5 kilowatts in the horizontal and vertical planes (circularly polarized). The KFRH auxiliary antenna will be Electronics Research, Inc., four bay, half wavelength spaced rototiller style antenna system (FCC/EPA Type #3). At 2.0 meters above the ground at the base of the tower, the height of an average person, the KFRH auxiliary antenna system will contribute  $0.0258 \text{ mw/cm}^2$ .<sup>2</sup> Based on exposure limitations for a controlled environment, 2.6% of the allowable ANSI limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 0.14% of the ANSI limit is reached at the gated access point 1754.2 meters from the tower.

Since this level for controlled and uncontrolled environments is less than the 5% limit defined by the Commission in §1.1307(b)(3)(i), the proposed KFRH auxiliary antenna system facility is believed to be in compliance with the radio frequency radiation exposure limits, as required by the Federal Communications Commission. Further, KLL will post warning signs in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, KLL will reduce the power of the 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.

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2) This level of field occurs at 112 meters out from the base of the tower and is considered worst case.