

**MINOR CHANGE APPLICATION**  
**BOARD OF TRUSTEES OF**  
**THE UNIVERSITY OF ARKANSAS**  
**KUAP RADIO STATION**  
**CH 209C2 - 89.7 MHZ - 50.0 KW**  
**PINE BLUFF, ARKANSAS**  
**November 2006**

**EXHIBIT C**

**Radio Frequency Assessment**

A study has been made to determine whether this proposal is in compliance with 47 C.F.R. §1.1307(b) 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>

The proposed KUAP antenna system will be mounted on a tower located near three buildings. The KUAP transmitter building is located at the base of the tower with a roof 12 feet above ground; there is a building located approximately 50 feet from the tower with a peaked roof 15 feet above ground; and there is a warehouse/athletic building approximately 200 feet from the tower with a flat roof 25 feet above ground. As such, we have calculated the contribution level 2.0 meters above the roof of the tallest building.

The proposed KUAP antenna system will be mounted with its center of radiation 83.2 meters (273.0 feet) above the ground and 75.6 meters (248 feet) above the roof of the tallest

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1) The contribution of the FM station was calculated with the FMModel program. The EPA single bay dipole antenna was used for calculations unless otherwise noted.

building at the tower location and will operate with an effective radiated power of 50.0 kilowatts in the horizontal and vertical planes (circularly polarized). The KUAP antenna will be an Electronics Research, Inc., rototiller type system (FCC/EPA Type #3). At 2.0 meters, the height of an average person, above the roof of the tallest building, the KUAP antenna system will contribute  $0.1372 \text{ mw}^2$ .<sup>2</sup> Based on exposure limitations for a controlled environment, 13.7% of the allowable ANSI limit is reached at 2.0 meters above the roof of the tallest building. For uncontrolled environments, 68.6% of the ANSI limit is reached at 2.0 meters above the roof of the tallest building.

Since this level for uncontrolled environments is well below the 100% limit defined by the Commission, the proposed KUAP facility is believed to be in compliance with the radio frequency radiation exposure limits as required by the Federal Communications Commission. Further, UA will insure warning signs are posted in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, UA 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. Based on the above factors, this proposal is categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.

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2) This level of contribution occurs at 73.0 meters out from the tower and is considered worst case.