

**MINOR CHANGE APPLICATION**  
**PETRACOM OF HOLBROOK, L.L.C.**  
**KZUA RADIO STATION**  
**CH 221C1 - 92.1 MHZ - 100.0 KW**  
**HOLBROOK, ARIZONA**  
**November 2010**

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

The proposed/corrected KZUA antenna system is mounted with its center of radiation 76.3 meters (250.2 feet) above the ground at the tower location and will operate with an effective radiated power of 100.0 kilowatts in the horizontal and vertical planes (circularly polarized). The KZUA antenna is an Electronics Reseach, Inc. 10 bay full wave 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 KZUA antenna system will contribute  $0.0623 \text{ mw/cm}^2$ .<sup>2</sup> Based on exposure limitations for a controlled environment, 6.2% of the allowable limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 31.2% of the allowable limit is reached at 2.0 meters above the ground at the base of the tower.

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- 1) The contributions of the FM facilities were calculated using the FMModel program. A single bay EPA dipole antenna was used for calculation purposes. In cases where the number of bays of the antenna was known, this data was used in the FMModel program.
  - 2) This level of field occurs at 18.0 meters out from the base of the tower and is considered worst case.

Since this contribution level for an uncontrolled environment is less than the ANSI limits, it is believed the proposed KZUA is in compliance with the radio frequency radiation exposure limits, as required by the Federal Communications Commission. Petracom will also insure that warning signs have been posted in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, Petracom 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.