

# **EXHIBIT 17-A**

## **Human Exposure to Radiofrequency Electromagnetic Field & Section 106 Compliance (Environmental)**

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, regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. Covenant Network seeks to modify construction permit BNPFT-20130821AAF for W247BU Channel 247D (97.3 MHz) Facility ID# 144050, licensed to Mascoutah, IL. This application seeks to relocate W247BU to a new transmit location, change the frequency to Channel 248D (97.5 MHz) and operate with an effective radiated power of 200 watts directional. The transmitter site tower is located at 38° 33' 39.5" N ~ 90° 01' 26.5" W (NAD 27). The tower itself extends 96 feet (29.3 meters) above ground. A communications antenna extends 8 feet (2.4 meters) above the tower, making the overall structure height with appurtenances a total of 108 feet (32.9 meters). The tower is less than 200 feet in height and is not registered with the FCC's Antenna Registration Structure system. The antenna will be a side mounted Nicom BKG-77 2 bay half wave circularly polarized directional antenna oriented at 252 degrees azimuth true north, with a center of radiation of 27 meters AGL. W247BU will operate with 200 watts ERP at 27 meters above ground level and 54 meters HAAT. The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of § 1.1306 of the FCC Rules. Because W247BU proposes to operate from an existing tower, is exempt from a Section 106 review by the SHPO/THPO.

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. The Nicom BKG-77 antenna is not listed in the Commission's FM Model for Windows Program. Therefore the Phelps-Dodge "Ring Stub" or Dipole (EPA) was selected as a worst case antenna type. The maximum calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 2.54  $\mu$ W/cm at 39 meters, which is 1.27 percent of the general population/uncontrolled maximum permitted exposure limit. This is well below the five percent threshold limit described in 1.1307(b) regarding sites with multiple emitters, which excludes applicant from responsibility for taking any corrective action in areas where the proposal's contribution is less than five percent.

The permittee/licensee in coordination with other users of the site agrees to reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines.